

Model (2)

15
Marks

1 (A) Choose the correct answer:

- 1 Matter that does not have a fixed volume and does not have a fixed shape is
 - a) a solid
 - a liquid
 - a gas
 - All the previous answers.
- 2 A food web shows the
 - non-living features in the environment
 - feeding relationships between organisms
 - way that heat is trapped in an environment
 - substances that contaminate the atmosphere
- 3 affects the food webs.
 - Increasing the number of a specific species
 - Decreasing the number of a specific species
 - The death of a specific species
 - All the previous answers.
- 4 We can measure weights using a
 - meterstick
 - scale
 - thermometer
 - measuring tape

(B) What happens when all algae are removed from the ocean food web?

2 (A) Complete the following sentences, using words between brackets:

- 1 Most coral reefs are found in areas away from the shore. (warm – cold)
- 2 If species is exposed to a habitat loss, its population (increases – decreases)
- 3 All things that have mass and occupy space are called (matter – energy)
- 4 Any food chain begins with a (producer – decomposer)

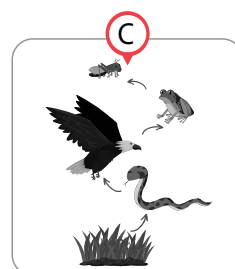
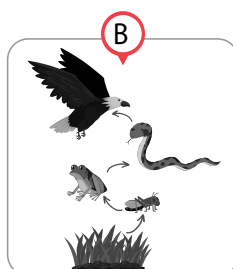
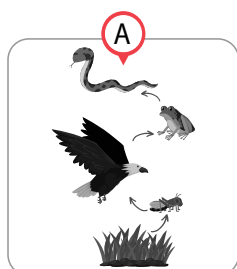
(B) Arrange the following in the order of increasing space between their particles:

- 1 Milk - Air - Table.
- 2 Smoke - Paper - Oil.

3 (A) Put (✓) or (X) in front of each sentence:

- 1 Steam is the liquid form of water. ()
- 2 Coral bleaching is caused by the increase in the temperature of water. ()
- 3 Solids and liquids are similar as they take up space. ()
- 4 Particles cannot be seen individually with the naked eye. ()

(B) Look at the following ecosystem, then circle the correct food chain that represents this environment:



Model (3)

15
Marks

1 (A) Choose the correct answer:

- 1 All the following sentences describe decomposers except
a) organisms that feed on dead animals b) organisms that feed on plants
c) organisms that recycle all energy back into the ecosystem
d) organisms that obtain food from the remains of other organisms
- 2 can keep their shape unless an action is done to break/or change them.
a) Gases b) Solids c) Liquids d) Plasmas
- 3 All the following represent the importance of coral reefs except
a) they are the habitats for many living organisms
b) attracting tourists c) producing energy
d) they ingest the microplastics by filtering the ocean water
- 4 Which of the following states has a fixed shape and a fixed volume?
a) Solid b) Liquid
c) Gaseous d) All the previous answers.

(B) Give reason: Food web is a better choice than the food chain.

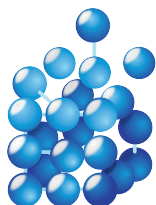
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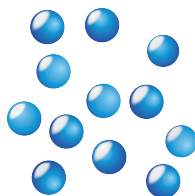
2 (A) Complete the following sentences, using words between brackets:

- 1 Food web shows the relationship between organisms in an ecosystem.
(reproduction – feeding)
- 2 Throwing plastic in water is one of the impacts of human activities.
(positive – negative)
- 3 During photosynthesis process, radiant energy changes into energy.
(heat – chemical)
- 4 can take the shape of its container.
(Juice – Wood)

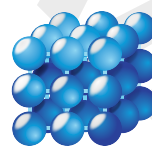
(B) Classify the following particles into "Solid, Liquid and Gas":



.....



.....



.....

3 (A) Write the scientific term for each of the following:

- 1 It is anything that has mass and volume. (.....)
- 2 Any increase or decrease in the number of organisms in an area. (.....)
- 3 It is the final-link in a food chain. (.....)
- 4 A tool used to measure temperature. (.....)

(B) Explain the effects of littering plastics into the ocean on marine life.

.....

.....

15
Marks

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(B) What happens when all algae are removed from the ocean food web?

..... The consumers decrease, and over time they will die.

2 (A) Complete the following sentences, using words between brackets:

- 1 Most coral reefs are found in areas away from the shore. (warm – **cold**)
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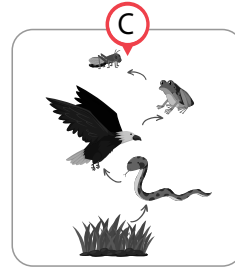
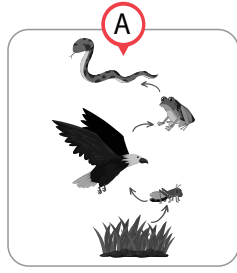
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- ① Milk - Air - Table. Table- Milk-Air
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- 1 Steam is the liquid form of water. (X)
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(B) Look at the following ecosystem, then circle the correct food chain that represents this environment:



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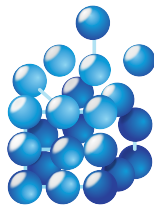
(B) Give reason: Food web is a better choice than the food chain.

..... Because it shows interactions among many food chains instead of
..... the interactions between just a few organisms.

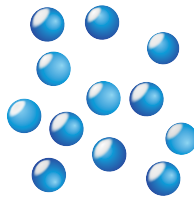
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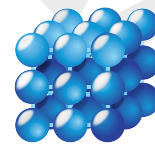
(B) Classify the following particles into "Solid, Liquid and Gas":



..... **Liquid**



..... **Gas**



..... **Solid**

3 (A) Write the scientific term for each of the following:

- 1 It is anything that has mass and volume. (Matter)
- 2 Any increase or decrease in the number of organisms in an area. (Population change)
- 3 It is the final-link in a food chain. (Decomposer)
- 4 A tool used to measure temperature. (Thermometer)

(B) Explain the effects of littering plastics into the ocean on marine life.

..... Plastic has a bad effect on marine animals, as they can't know the difference
..... between plastic and their real food.

Test

1

Total mark

15

(5 marks)

Question 1

A Choose the correct answer :

- 1 Coral reefs are considered as
 (a) living organisms. (b) bacteria. (c) ecosystems. (d) fungi.
- 2 The movement of particles of water are slower than that of
 (a) wood. (b) plastic. (c) air. (d) gold.
- 3 If all grasses were removed completely from an ecosystem, rabbits in this ecosystem will
 (a) increase. (b) decrease.
 (c) die. (d) not be affected.
- 4 By changing the of a matter, its state may change.
 (a) mass (b) volume (c) color (d) temperature

B Give a reason for the following :

In case of fire forest, animals suffer from difficulty breathing.

Question 2

(5 marks)

A Put (✓) or (X) :

- 1 In an ecosystem, all species depend on other species for survival. ()
- 2 Healthy coral reefs have no benefit to fish but they are important for tourism. ()
- 3 A model of an airplane shows us how it flies up into the air. ()
- 4 Frozen vegetables and vinegar have definite shape. ()

B What happens to ... ?

The volume of a coin if we transfer it from a cup to another cup.

Question 3

(5 marks)

A Cross out the odd word :

1 Grasses – Algae – Sea stars – Trees.

(.....)

2 Oil – Milk – Water – Coin.

(.....)

3 Fox – Clam – Rabbit – Eagle.

(.....)

B Complete the following sentences using the words below :

(gas – forests – solid – oil)

1 Fire of and leakage of cause pollution that affects the survival of living organisms.

2 We can classify the types of matter into liquid, and

Test

2

Total mark

15

Question 1

(5 marks)

A Choose from column (B) what suits it in column (A) :

| (A) | (B) |
|-------------------|--------------------------------|
| 1. Carbon dioxide | a. is a gaseous form of water. |
| 2. Sand | b. is a liquid matter. |
| 3. Gasoline | c. is a gas matter |
| 4. Water vapor | d. is a solid matter. |

1.

2.

3.

4.

B What happens if ... ?

The number of secondary consumers in an ecosystem decreases.

.....

Question 2

(5 marks)

A Correct the underlined words :

- 1 Energy transfers when a secondary consumer feed on a producer. (.....)
- 2 All nonliving things can make their own food. (.....)
- 3 Producers need the energy of moonlight to make photosynthesis process. (.....)
- 4 Due to rising of seawater temperature, coral reefs turn completely into green. (.....)

B Give a reason for the following :

Using models to study some scientific concepts.

.....

Question 3

(5 marks)

A Write the scientific term of each of the following :

- 1 A device used to examine one tiny particle such as a blood cell. (.....)
- 2 They are consumers which feed on secondary consumers. (.....)
- 3 The tool used to measure the length of a wall. (.....)

B Complete the following sentences :

- 1 A predator get from the prey which feeds on.
- 2 Particles of liquid matter can move faster than matter and more slower than matter.
- 3 If producers increase in an ecosystem, the number of primary consumers will

Answers of Test

1

Question 1

- A 1 (C) 2 (C) 3 (C) 4 (d)

B Because fire forests produce smoke that causes difficulty breathing of animals.

Question 2

- A 1 (✓) 2 (X) 3 (✓) 4 (X)

B It will not change.

Question 3

A 1 Sea stars (all items are producers, while sea stars are primary consumers).

2 Coin (all items are liquid matter, while coin is a solid matter).

3 Clam (all items live on land, while clam lives in water).

B 1 forests – oil 2 solid – gas.

Answers of Test

2

Question 1

- A 1 (C) 2 (d) 3 (b) 4 (a)

B The number of primary consumers increases and the amount of producers decreases.

Question 2

- A 1 primary consumer 2 producers 3 sunlight 4 white.

B To study them in an easier way.

Question 3

- A 1 Microscope. 2 Tertiary consumers. 3 Tape measure.

B 1 energy 2 solid – gas. 3 increase.

Concept 2: Energy Flow in Ecosystems Concept 3: Changes in Food Webs

1 Choose the correct answer:

- 1 are both primary and secondary consumers.
 - a. Plants
 - b. Fungi
 - c. Humans
 - d. Predators
- 2 In any food chain, the primary consumers may be
 - a. predators only
 - b. prey only
 - c. predators or prey
 - d. green plants
- 3 Decomposers can get their energy from
 - a. living things
 - b. soil and water
 - c. dead organisms
 - d. the sun
- 4 The relationship between is “predator and prey” relationship.
 - a. algae and corals
 - b. frogs and locusts
 - c. rabbits and carrots
 - d. eagles and fungi
- 5 The tertiary consumer does not exist in food chain (.....)
 - a. Algae → coral → parrotfish → shark
 - b. Grass → mouse → snake → eagle
 - c. Grass → locust → frog → snake
 - d. Carrot → rabbit → fox → bacteria
- 6 In this food chain (Grass → rabbit → hawk), if the rabbits disappear, will increase.
 - a. grass
 - b. hawks
 - c. a and b
 - d. no correct answer

- 7 In this food chain (Acacia tree → giraffe → lion), the symbol (→) represents the flow of
a. pollution
b. force
c. energy
d. motion
- 8 Primary consumers are the link in their food chain.
a. first
b. second
c. third
d. final
- 9 Healthy desert ecosystems always require from time to time.
a. strong winds
b. heavy rain
c. gentle rain
d. floods
- 10 Which of the following examples causes the greatest damage to an ecosystem?
a. Grass removal
b. Predators extinction
c. Predators increase
d. Prey increase
- 11 Heavy rain may the desert ecosystem.
a. improve
b. benefit
c. harm
d. restore
- 12 If the grass is removed from an ecosystem, will die first.
a. primary producers
b. primary consumers
c. secondary consumers
d. decomposers
- 13 When a predator feeds on prey, is transferred between them.
a. water
b. blood
c. motion
d. energy
- 14 When the number of predators increases, the number of decreases.
a. producers
b. other predators
c. prey
d. decomposers

Revision

- 15 Human activities and pollution in impact the marine ecosystem quickly.
- a. cities
 - b. forests
 - c. deserts
 - d. islands
- 16 All the following examples represent bad human activities, except
- a. overfishing
 - b. air pollution
 - c. floods
 - d. plastic pollution
- 17 Nutrients are recycled back into the ecosystem by the
- a. predators
 - b. prey
 - c. consumers
 - d. decomposers
- 18 In most marine food webs, are considered producers.
- a. grass
 - b. algae
 - c. bacteria
 - d. small fish
- 19 All the following have bad impact on the marine ecosystem, except
- a. island pollution
 - b. heavy rain
 - c. plastic pollution
 - d. overfishing
- 20 If the number of primary consumers increases so much, will disappear.
- a. producers
 - b. decomposers
 - c. secondary consumers
 - d. tertiary consumers
- 21 All the following organisms can make their own food, except
- a. grass
 - b. worms
 - c. algae
 - d. microorganisms
- 22 If the climate change was suitable, the living organisms will
- a. die
 - b. migrate
 - c. survive
 - d. extinct
- 23 live on the tops of mountain cliffs and depend on fish as their main source of food.
- a. Eagles
 - b. Hawks
 - c. Owls
 - d. Seabirds

24. are/is considered the producers in the marine food web.
- a. Small fish
 - b. Coral reefs
 - c. Marine microorganisms
 - d. Grass
25. The migration of microorganisms to a new habitat is due to the increase of
- a. the air temperature
 - b. the water temperature
 - c. the number of seabirds
 - d. the number of fish
26. Increasing water temperature may cause all the following, except
- a. increasing microorganisms
 - b. coral bleaching
 - c. migration of fish
 - d. death of some seabirds
27. If the turtle sees a plastic piece, the turtle will
- a. avoid it
 - b. escape quickly
 - c. begin to eat it
 - d. digest it
28. is one of the best ways to protect the marine ecosystem.
- a. Throwing sewages in seas
 - b. Using plastics for single use
 - c. Breaking plastics
 - d. Recycling plastics
29. Micro-plastics are formed by the effect of the
- a. air
 - b. sun
 - c. water
 - d. soil
30. is an area in the ocean where the small pieces of corals are nurtured.
- a. Coral reefs
 - b. The nursery
 - c. Protectorate
 - d. Garden
31. is one of the ways done by coastal communities to reduce plastic pollution.
- a. Replacing wooden forks with plastic ones
 - b. Using grocery plastic bags
 - c. Using single-used plastics
 - d. Using cloth bags

Revision

- 32 All the following are affected by pollution, except
a. living organisms as human, plants and animals
b. non-living things as air, water and soil
c. all components of the ecosystem
d. dead organisms only
- 33 If the number of, the grass will increase in the ecosystem.
a. decomposers decreases b. producers increases
c. primary consumers increases d. primary consumers decreases
- 34 are the top predators in their food chain.
a. Frogs b. Birds
c. Alligators d. Butterflies
- 35 Decomposers directly benefit from and complete the food chain cycle.
a. water and fish b. air and birds
c. dead organisms d. soil and dead producers
- 36 All the following organisms depend on another organism to get their energy, except
a. predators b. prey
c. green plants d. b and c
- 37 A population change refers to the increase or decrease in
a. water and food resources b. number of living organisms
c. the weather temperature d. the water temperature

2 Complete the following using the words between the brackets:

- 1 of the energy in dead prey are recycled to the soil.
(10% - 90%)
- 2 is a natural recycling factory.
(Photosynthesis - Decomposition)
- 3 Corals in the marine food web are considered as
(consumers - producers)

- 4 is/are considered a healthy ecosystem. (Coral – Coral reefs)
- 5 Rabbits die quickly when disappear from the ecosystem.
(hawks – grasses)
- 6 water is suitable for microorganisms. (Cold – Warm)
- 7 Corals the seawater to get their food. (absorb – filter)
- 8 Micro-plastics are very harmful as they are not
(toxic – nutritious)
- 9 A long food chain has a great number of
(producers – consumers)
- 10 Gentle rain may the desert ecosystems. (benefit – harm)
- 11 Habitat loss may the ecosystems. (benefit – harm)
- 12 water is healthy for microorganisms. (Cold – Warm)
- 13 Heavy rain may the desert ecosystems.
(improve – destroy)
- 14 Habitat restoration may the ecosystems.
(benefit – harm)
- 15 of the energy in dead prey are transferred to predators.
(10% – 90%)
- 16 Habitat loss for any living organism make them
(go extinct – survive)
- 17 Decomposers recycle nutrients to
(soil – air)
- 18 Coral bleaching means the coral color turns to
(red – white)
- 19 Algae in the marine food web are considered as
(consumers – producers)
- 20 The amount of rainfall has a strong effect on the ecosystem.
(marine – desert)

3 Put (✓) or (X):

- 1 Heavy rain improves the desert ecosystem more than gentle rain. ()
- 2 Energy remains in an ecosystem but it's transferred between its components. ()
- 3 Living organisms always need non-living things in the ecosystem to survive. ()
- 4 Coral reefs lose their colors when the water temperature decreases. ()
- 5 A primary consumer could be a predator in its food chain. ()
- 6 Humans are both primary and secondary consumers. ()
- 7 The restoration process always takes a little time. ()
- 8 When a plant dies, consumers may not be found in this short food chain. ()
- 9 Overfishing is one of the most natural events that impact the marine ecosystem. ()
- 10 Algae enter the tissue of corals when the water temperature increases. ()
- 11 If the grass is removed from the desert, hawks will die quickly. ()
- 12 It is better to use single-used plastic forks to reduce plastic pollution. ()
- 13 Palau work with fishers to make sure they are not overfishing in coral reefs. ()
- 14 Heavy rain in the desert causes the growth of more producers. ()
- 15 The number of prey increases when the number of predators decreases. ()
- 16 Increasing the number of primary consumers may make producers disappear. ()

- 17 Secondary consumers may migrate if the producers are removed from the ecosystem. ()
- 18 Microorganisms recycle back the important elements to water. ()
- 19 When the water becomes warm, seabirds have to move for another cooler area. ()
- 20 Habitat loss may cause extinction for any species of living organisms. ()
- 21 Using plastic grocery bags is better than using cloth bags. ()
- 22 Sea turtles and corals are always in danger due to plastic pollution. ()

4 Write the scientific term for each of the following:

- 1 The first organism to be impacted by the death of the producer. ()
- 2 Organisms that return the energy back to the ecosystem. ()
- 3 The process of recycling the energy back to the ecosystem. ()
- 4 The producers of the marine food web. ()
- 5 A bird that builds its nest on the top cliff and depends on fish to get its energy. ()
- 6 A process in which humans can make new products from waste materials. ()
- 7 A phenomenon that happens to living organisms due to habitat loss. ()
- 8 A phenomenon that causes the coral to turn completely white. ()
- 9 A human activity that decreases the number of fish in the marine area. ()
- 10 Rays coming from the sun that cause the formation of microplastics. ()

Revision

- 11 The number of living organisms of one species. (.....)
- 12 Organisms that break down the remains of dead organisms. (.....)
- 13 It is from the most diverse marine ecosystems on Earth. (.....)
- 14 Small pieces of plastic that formed due to the UV of the sun falling on it. (.....)
- 15 The increase or decrease in the number of living organisms. (.....)
- 16 The harm that affects air, water, or soil due to human activities. (.....)
- 17 It is the returning of land and water back to how they were before harm was done. (.....)
- 18 It is an area in the ocean where the small pieces of corals are nurtured. (.....)
- 19 A way of life that coastal communities near the reefs have adopted. (.....)
- 20 The suitable ecosystem for plant-community ecologists to make their researches. (.....)

5 Classify the following organisms in this table:

Rabbit – Vulture – Hawk – Cockroaches – Bacteria –
 Hyenas – Grass – Crabs – Algae – Houseflies – Alligator –
 Acacia tree – Slugs – Marine microorganisms –
 Earthworms – Frog – Human – Millipedes – Deer

| Producer | Consumer | Decomposer | Scavengers |
|----------|----------|------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |

6 Choose from column (A) what suits it in column (B):

1

Column (A)

- 1 Gentle rains
- 2 Heavy rains
- 3 Overfishing
- 4 Recycling plastics

Column (B)

- a. harm the desert ecosystem.
- b. reduces ocean pollution.
- c. improve the desert ecosystem.
- d. destroys the marine ecosystem.

1

2

3

4

2

Column (A)

- 1 Photosynthesis
- 2 Decomposition
- 3 Restoration
- 4 Zero plastics
- 5 Habitat loss
- 6 Coral bleaching

Column (B)

- a. causes death or extinction of living organisms.
- b. is a way that is used to reduce plastic pollution.
- c. means that the coral color turns to white.
- d. releases oxygen in the air.
- e. is recovering a shelter to animals.
- f. recycles nutrients to the soil.

1

2

3

4

5

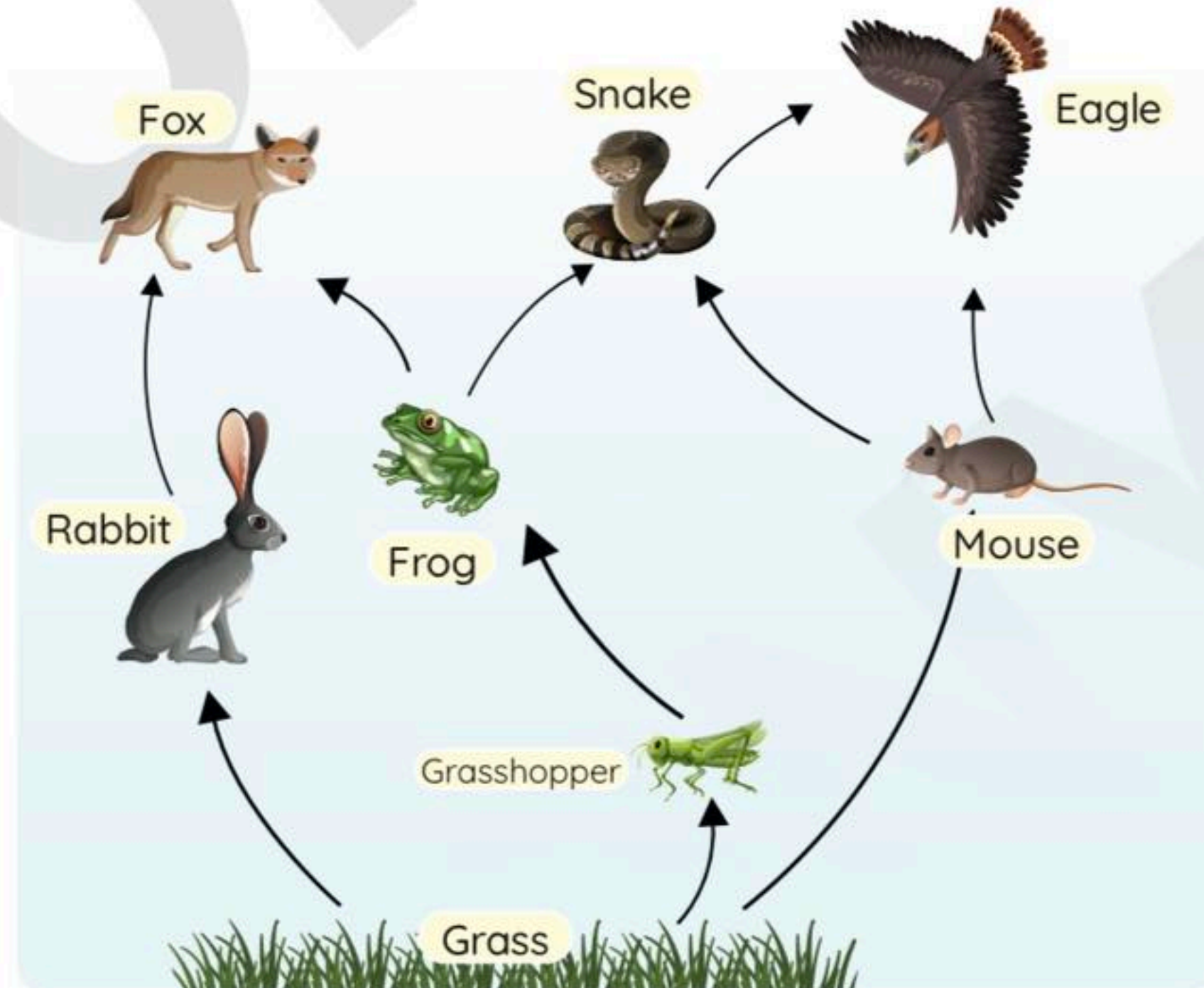
6

7 Cross out the odd word:

- 1 Snails – Houseflies – Slugs – Earthworm ()
- 2 Vultures – Crabs – Cockroaches – Fungi ()
- 3 Grass – Algae – Bacteria – Marine microorganisms ()
- 4 Algae – Rabbits – Whales – Corals ()
- 5 Grass – Zooplankton – Fox – Mouse ()
- 6 Overfishing – Floods – Microplastics ()

8 Variant questions:

1 Study the following food web, then answer the questions:



1 From this food web, complete the following to form three food chains:

- a. → → *
- b. → → → *
- c. → → → → *

2 Complete the following sentences using the words between the brackets:

- a. The number of primary consumers is organisms.
(two - three)
- b. The uses the energy of the sun to produce its own food.
(grass - eagle)
- c. The eagle is considered a tertiary consumer when eating the
(mouse - snake)
- d. The may be a predator and prey in the same time.
(rabbit - frog)

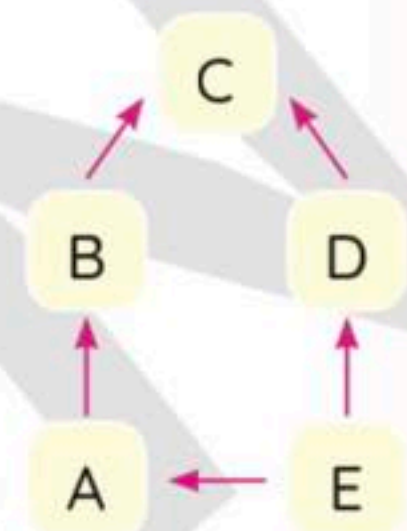
- 2 Study the following food web, then complete the sentences using the words between the brackets:



- a. If the population of rabbits increases, may disappear.
(foxes - grass)
- b. The snake is considered a consumer. (primary - secondary)
- c. The rabbit provides energy to the (eagle - grass)
- d. If the grass is removed, the mouse and rabbit will
(migrate - die)

- 3 Study the following food web, then complete the sentences using the words between the brackets:

- a. Letter (.....) represents the producer. (A - E)
- b. Letter (B) represents the consumer.
(primary - secondary)
- c. Letter (C) is the tertiary consumer when it feeds on letter (.....).
(B - D)



Revision

4 Study the following figure, then answer the questions:



a. What is the name of this phenomenon?

b. Is this a healthy ecosystem?

c. What is the reason of this phenomenon?

9 Give reasons for:

- 1 Scavengers play an important role before the decomposition process.
- 2 Decomposition process is a nature's recycling factory.
- 3 Recycling process helps in decreasing pollution.
- 4 Increasing the number of one species of living organisms causes its death.
- 5 Palau Island manages land activities.
- 6 Gentle rain benefits the desert ecosystem.
- 7 Falling of heavy rain harms the desert ecosystem.
- 8 Microorganisms in water make the same role of grass in the desert.
- 9 The coral reef is the most diverse and valuable ecosystem.
- 10 Sometimes sea turtles feed on plastic pieces.
- 11 Increasing water temperature lead to coral bleaching.
- 12 Plastics are so harmful for the marine ecosystem.
- 13 Microplastics have a bad effect on corals.
- 14 Restoration process helps to recover ecosystems.
- 15 The nursery plays an important role in the recovery of coral reefs.

10 What happens if:

- 1 Decomposers disappear in an ecosystem.
- 2 Increasing the number of secondary consumers.
- 3 Grass disappears from an ecosystem.
- 4 The number of one species increases so much.
(Concerning food resources)
- 5 The number of predators increases so much.
(Concerning number of prey)
- 6 Gentle rain falls in the desert.
- 7 Heavy rain falls in the desert.
- 8 The water becomes warm. (Concerning corals and microorganisms)
- 9 The climate change becomes unsuitable for living organisms.
- 10 The amount of plastics in water rises.

Concept 4: Matter in the World Around Us

1 Choose the correct answer:

- 1 Which matter has a definite shape?
a. Water b. Ice c. Oil d. Air
- 2 can be poured in any container.
a. Oxygen b. Juice c. Ice d. Air
- 3 Anything that has mass and occupies space is called
a. energy b. force c. matter d. weight
- 4 Any matter exists in state(s).
a. one b. two c. three d. four
- 5 All the following examples represent solid states, except
a. juice b. feather c. ice d. rock
- 6 All matter around us consist of
a. cells b. particles c. nutrients d. proteins
- 7 Matter can be described by
a. hardness b. color c. shape d. all the previous
- 8 Which of the following examples isn't a matter?
a. Bird's feathers b. Cup of water
c. Empty cup d. Bird sound
- 9 is considered an invisible matter.
a. Milk b. Air c. Father d. Sound
- 10 Cold milk and hot tea are similar in
a. color b. temperature c. taste d. state
- 11 are different matters but they exist in the same state.
a. Water and ice b. Wood and air
c. Milk and juice d. Air and water
- 12 are same matters, but they exist in the different states.
a. Wood and brick b. Oxygen and air
c. Oil and tea d. Ice and water vapor

- 13 Tiny particles inside move very freely.
 a. water b. air c. wood d. ice
- 14 You can measure your height using a
 a. balance b. thermometer c. ruler d. metric stick
- 15 Thermometer can be used to know the of water.
 a. shape b. color c. temperature d. weight
- 16 Water is described by all of these properties, except
 a. we can pour it b. it occupies space
 c. it has a definite shape d. it takes the shape of the container
- 17 Which of the following matters has no texture?
 a. Feather b. Oxygen c. Water d. Ball
- 18 has a definite size and an indefinite shape.
 a. Air b. Ice c. Water d. Wood
- 19 Some matters are very small and we cannot see them, such as
 a. water b. germs c. pencils d. insects

2 Put (✓) or (X):

- 1 The state of matter can't be changed from one form to another. ()
- 2 Matter exists everywhere around us in nature. ()
- 3 The particles in ice move more freely than in water. ()
- 4 Water always takes the shape of the container that it is poured in. ()
- 5 Matter consists of tiny moving particles. ()
- 6 Water vapor has no texture and it is a visible matter. ()
- 7 Gases completely fill a closed container, such as when you blow a balloon. ()
- 8 Ice melts into water by cooling it. ()
- 9 Water has indefinite shape and size. ()
- 10 Two objects can take up the same space at the same time. ()

3 Write the scientific term:

- 1 Anything around us that has mass and occupies space. (.....)
- 2 They exist inside matter in a continuous motion. (.....)
- 3 A state of matter in which matter has a definite shape. (.....)
- 4 A state of matter that can be poured in a container. (.....)
- 5 A device that is used to measure the height of a boy. (.....)
- 6 A device that is used to measure the temperature of milk. (.....)
- 7 A device that is used to measure the mass of apples. (.....)
- 8 A process in which ice changes into water. (.....)
- 9 A process in which water changes into ice. (.....)

4 Complete the following sentences:

- 1 Matter is anything that has and occupies space.
- 2 Matter can exist in states that are, and
- 3 Matter can be described by, or
- 4 The of particles inside matter can describe its state.
- 5 The particles inside move very freely.
- 6 Light and sound are not, but they are considered forms of
- 7, and are examples of gaseous states.
- 8 Water has shape and size.
- 9 Some matters are very small and we cannot see them, such as or
- 10 can be poured in a container and it takes

5 Cross out the odd word:

- 1 Oil – Milk – Feather – Juice (.....)
- 2 Wood – Ice – Oxygen – Iron (.....)
- 3 Air – Water vapor – Ice – Carbon dioxide (.....)
- 4 Water – Air – Light – Wood (.....)

6 Choose from column (A) what suits it in column (B):

1

Column (A)

- 1 Matter
- 2 Particles
- 3 Sound
- 4 Oxygen

Column (B)

- a. is not a matter.
- b. is an invisible form of matter.
- c. exist inside the matter in a continuous motion.
- d. exists in three states.

1

2

3

4

2

Column (A)

- 1 Solid state
- 2 Liquid state
- 3 Gaseous state

Column (B)

- a. has indefinite shape and definite size.
- b. has definite shape and size.
- c. has indefinite shape and size.

1

2

3

3

Column (A)

- 1 Thermometer
- 2 Balance
- 3 Measuring tape

Column (B)

- a. is used to measure the height of a boy.
- b. is used to measure the temperature of hot tea.
- c. is used to measure the mass of fruits.

1

2

3

7 Compare between the following:

| P.O.C | Solid | Liquid | Gas |
|-------------------------|-------|--------|-----|
| Size | | | |
| Shape | | | |
| Texture | | | |
| Motion of particles | | | |
| Space between particles | | | |

8 Study the following figure, then complete the following sentences:



- Melting means that matter changes from figure (.....) to (.....).
- In figure (.....), particles are very close to each other.
- The particles in figure (.....) move more freely.
- Both figures are same in
- Both figures are different in

9 Give reasons for:

- Air is a matter.
- Air has no definite shape and volume.
- Although gases are invisible, we can know they exist.
- Solids can keep their shape.

10 What happens if:

- Water is poured into a cup of water.
- Ice cubes are exposed to heat.
- Liquid changes into gas (Concerning the speed of particles).

Concept 2: Energy Flow in Ecosystems

Concept 3: Changes in Food Webs

- 1**
- | | | | |
|------|------|------|------|
| 1 c | 2 b | 3 c | 4 b |
| 5 d | 6 a | 7 c | 8 b |
| 9 c | 10 a | 11 c | 12 b |
| 13 d | 14 c | 15 d | 16 c |
| 17 d | 18 b | 19 b | 20 a |
| 21 b | 22 c | 23 d | 24 c |
| 25 b | 26 a | 27 c | 28 d |
| 29 b | 30 b | 31 d | 32 d |
| 33 d | 34 c | 35 d | 36 c |
| 37 b | | | |

- 2**
- | | |
|-----------------|--------------|
| 1 90% | |
| 2 Decomposition | |
| 3 consumers | |
| 4 Coral reefs | 5 grasses |
| 6 Cold | 7 filter |
| 8 nutritious | 9 consumers |
| 10 benefits | 11 harm |
| 12 Cold | 13 destroy |
| 14 benefit | 15 10% |
| 16 go extinct | 17 soil |
| 18 white | 19 producers |
| 20 desert | |

- 3**
- | | | | |
|------|------|------|------|
| 1 X | 2 ✓ | 3 ✓ | 4 X |
| 5 X | 6 ✓ | 7 X | 8 ✓ |
| 9 X | 10 X | 11 X | 12 X |
| 13 ✓ | 14 X | 15 ✓ | 16 ✓ |
| 17 ✓ | 18 X | 19 ✓ | 20 ✓ |
| 21 X | 22 ✓ | | |

- 4**
- | | |
|--------------------------------|---------------|
| 1 Primary consumer | |
| 2 Decomposers | |
| 3 Decomposition process | |
| 4 Algae | 5 Seabird |
| 6 Recycling process | |
| 7 Extinction | |
| 8 Coral bleaching | |
| 9 Overfishing | |
| 10 Ultra Violet Rays (UV rays) | |
| 11 Population | 12 Scavengers |
| 13 Coral reefs | |
| 14 Microplastics | |
| 15 Population change | |
| 16 Pollution | |
| 17 Habitat restoration | |
| 18 Nursery | |
| 19 Zero plastics | 20 Prairie |

5

| Producer | Consumer |
|--------------------------|--------------|
| 1. Grass | 1. Rabbit |
| 2. Algae | 2. Hawk |
| 3. Acacia tree | 3. frog |
| 4. Marine microorganisms | 4. Alligator |
| | 5. deer |
| | 6. Human |

| Decomposer | Scavengers |
|---------------|----------------|
| 1. Bacteria | 1. Vulture |
| 2. Slugs | 2. Cockroaches |
| 3. Earthworms | 3. Hyenas |
| 4. millipedes | 4. Crabs |
| | 5. Houseflies |

- 6** 1 1 ⇒ c 2 ⇒ a
3 ⇒ d 4 ⇒ b
2 1 ⇒ d 2 ⇒ f
3 ⇒ e 4 ⇒ b
5 ⇒ a 6 ⇒ c
- 7** 1 Houseflies 2 Fungi
3 Bacteria 4 Rabbits
5 Zooplankton
6 Floods
- 8** 1 1 a. Grass ⇒ Rabbit ⇒ Fox
b. Grass ⇒ Mouse ⇒ Snake
⇒ Eagle
c. Grass ⇒ Grasshopper ⇒
Frog ⇒ Snake ⇒ Eagle
2 a. three b. grass
c. snake d. frog
2 a. grass b. secondary
c. eagle d. die
3 a. E b. secondary
c. B
4 a. Coral bleaching
b. No
c. Increasing the temperature
of water.

- 9** 1 Because scavengers break down food into small pieces before the decomposition process.
2 Because decomposition process returns nutrients back to the soil again.
3 Because recycling process helps in producing new products from waste materials instead of throwing them in landfills.
4 Because as the number of one species of living organisms increases, the food and water resources may run out and so on they will die.
5 To control the quality of the marine ecosystem in it.
6 Because gentle rain helps producers to grow so the desert ecosystem improves.
7 Because falling of heavy rains may cause floods, so the grass dies and the desert ecosystem is destroyed.
8 Because marine microorganisms can make their own food.
9 Because the coral reef provides marine organisms with shelter and food.

- 10 Because sea turtles cannot know the difference between corals and plastic pieces.
- 11 Because when water becomes too warm:
 1. Corals will get rid of the algae living in their tissues.
 2. This causes the coral to turn completely white.
 3. Bleaching events stress corals and often they do not survive.
- 12 Because plastic is not nutritious and it can also be toxic and sharp.
- 13 Because corals filter the seawater to get their food and they also ingest microplastics as the pieces of food that they are getting from the water.
- 14 Restoration process helps in restoring the land and water back to how they were before harm was done.
- 15 Because nursery is an area in the ocean where the small pieces of corals are nurtured until they can be moved back to the reefs where they were dying.

- 10 1 Dead things would build up, just like the trash in landfills.
- 2 The number of primary consumers will decrease.
- 3 Primary consumers will die first, while other consumers may migrate or die.
- 4 Food and water resources will run out and disappear.
- 5 The numbers of prey decrease.
- 6 Producers will grow and the desert ecosystem is improved.
- 7 Floods occur, so producers will die and the desert ecosystem is destroyed.
- 8 When the water becomes warm:
 1. Corals will get rid of the algae living in their tissues and their color turns completely white which stress corals and often they do not survive.
 2. Marine microorganisms will move toward an area where the water is cooler.
- 9 The population of species will decrease by them moving to another place or dying.
- 10 Plastic will cause damage to the marine life and affect marine organisms negatively.

Concept 4: Matter in the World Around Us

- 1** ① b ② b ③ c ④ c
 ⑤ a ⑥ b ⑦ d ⑧ d
 ⑨ b ⑩ d ⑪ c ⑫ d
 ⑬ b ⑭ d ⑮ c ⑯ c
 ⑰ b ⑱ c ⑲ b

- 2** ① ✗ ② ✓ ③ ✗ ④ ✓
 ⑤ ✓ ⑥ ✗ ⑦ ✓ ⑧ ✗
 ⑨ ✗ ⑩ ✗

- 3** ① Matter ② Particles
 ③ Solid state ④ Liquid state
 ⑤ Metric stick
 ⑥ Thermometer
 ⑦ The balance
 ⑧ Melting process
 ⑨ Freezing process

- 4** ① mass
 ② three - solid - liquid - gas
 ③ shape - color - texture
 ④ movement ⑤ gas
 ⑥ matter - energy
 ⑦ Water vapor - oxygen gas - carbon dioxide gas
 ⑧ indefinite - definite
 ⑨ germs - air
 ⑩ Water - the shape of the container

- 5** ① Feather ② Oxygen
 ③ Ice ④ Light

- 6** ① 1 ⇒ d 2 ⇒ c
 3 ⇒ a 4 ⇒ b
 ② 1 ⇒ b 2 ⇒ a
 3 ⇒ c
 ③ 1 ⇒ b 2 ⇒ c
 3 ⇒ a

7

| P.O.C | Solid | Liquid | Gas |
|-------------------------|--|--------------------------------|------------------------------------|
| Size | Definite | Definite | Indefinite |
| Shape | Definite | Indefinite | Indefinite |
| Texture | Smooth | Moist | No texture |
| Motion of particles | Move only a little bit | Move more freely | Move very freely |
| Space between particles | The particles are packed tightly with each others. | The particles have more space. | The particles have a lot of space. |


- 8** ① 1 to 2
 ② 1 ③ 2
 ④ matter
 ⑤ state

- 9**
- 1 Because air has mass and occupy space.
 - 2 Because the particles inside air have a lot of space between them and they move very freely.
 - 3 Because they completely fill a closed container, such as when you pump air into a bicycle tire tube.
 - 4 Because particles inside solids are close to each other and they move only a little bit.
-
- 10**
- 1 Water will take the shape of the container.
 - 2 Ice will be changed from the solid state into the liquid state.
 - 3 The speed of the particles will increase and they will move very freely.

November Tests

Test 1

1 A) Complete the following with an answer from brackets:

- 
1. The interconnected food chain is called a/an (food web - ecosystem)
2. Energy transfers from the sun to producers reaching the stage.
(predation - decomposing)
3. Vapor that rises from a boiler placed on the stove is an example of a state.
(gaseous - liquid)
4. Sound and light are considered a form of (matter - energy)

B) What happens if..:

- The amounts of plastics in the marine environment increase?

2 A) Put a (✓) for the correct statement and a (X) for the incorrect statement:

1. Scavengers feed on the remains of dead plants and animals after cutting them into small pieces. ()
2. Sea turtles feed on jellyfish. ()
3. Air polluted by smoke can destroy the food web. ()
4. Particles of liquids are close together and move slowly. ()

B) Food webs explain the relationship between living organisms more than food chains.

Give reason.

3 A) Choose the correct answer:

1. The decomposers decompose
- a plants only b animals only
- c both plants and animals d sunlight

2. When water becomes warm, the coral color changes into

- a red
- b black
- c green
- d white

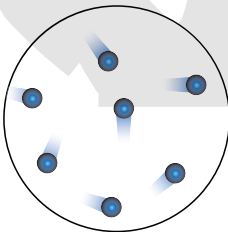
3. The occurrence of drought in lakes causes in the ecosystem.

- a stability
- b balance
- c disturbance
- d strength

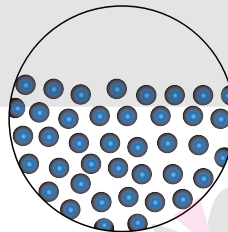
4. The juice you drink for breakfast is an example of matter.

- a solid
- b liquid
- c gaseous
- d frozen

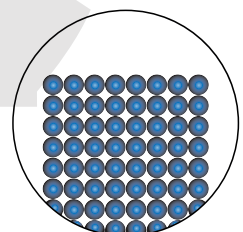
B) Which of the following pictures shows the shape of particles in a gaseous substance?



(1)



(2)



(3)

Test 2

1 A) Complete the following with an answer from brackets:

- The growth of mushrooms on soil represents a process.
(predation - decomposition)
- When the grass disappears in the desert, are directly affected..
(rabbits - foxes)
- The particles of gaseous substances move
(freely - slowly)
- keep their shape unless something causes them to change.
(Liquids - Solids)

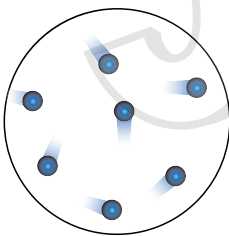
B) Human interference in the environment is one of the reasons for changing the natural habitats.

Give reason.

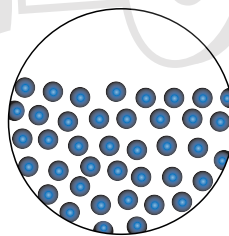
2 A) Put a (✓) for the correct statement and a (X) for the incorrect statement:

- When the water becomes warm the algae hides in the coral reefs. ()
- The corals filter the ocean water in order to get their food. ()
- Gases occupy any closed container they are placed in. ()
- Matter occupies space. ()

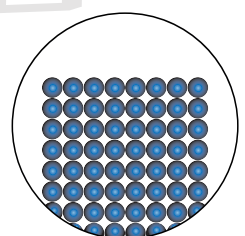
B) Which of the following pictures shows the shape of particles in a solid substance?



(1)



(2)



(3)

3 A) Choose the correct answer:

1. Nutrients return back to the soil due to
 - a producers
 - b consumers
 - c predators
 - d decomposers
2. When goats feed on grass and tigers feed on goats, this is an example of
 - a photosynthesis
 - b the digestion process
 - c a food web
 - d a food chain
3. Plastics break down into smaller pieces by rays.
 - a infrared
 - b ultraviolet
 - c green
 - d yellow
4. Which of the following doesn't represent matter?
 - a Computer
 - b Sound
 - c Juice
 - d Air

B) What happens if..:

- The seeds of some plants are dispersed by wind?

.....

Test 3

1 A) Complete the following with an answer from brackets:

1. Plant seeds that are dispersed by wind are seeds. (sticky - light)
2. Consumers migrate to search for food when disappear.
(decomposers - producers)
3. Seabirds dive deep down into the sea to
(build their nests - search for small fish)
4. Ice cubes that are placed in drinks represent a state. (solid - liquid)

B) What happens if..:

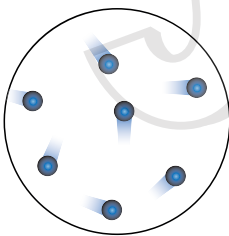
- The coral reefs disappear?

.....

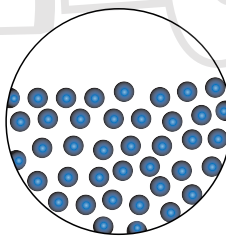
2 A) Put a (✓) for the correct statement and a (X) for the incorrect statement:

1. Waste can be reduced by recycling. ()
2. The food web contains all the components that make up the food chain. ()
3. The pencil is made up of tiny particles. ()
4. Iron and oil are similar as they are both gaseous substances. ()

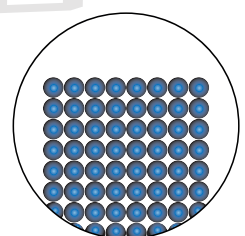
B) Which of the following pictures shows the shape of particles in a liquid substance?



(1)



(2)



(3)

3 A) Write the scientific term that each phrase indicates:

1. A group of interconnected food chains. (.....)
2. Small living organisms which complete the process of decomposition and feed on the remains of dead plants and animals. (.....)
3. An area in the ocean where small parts of coral reefs are nurtured. (.....)
4. Everything that has a mass and occupies space. (.....)

B) Vinegar takes the shape of the container in which it is placed.

Give reason.

Test 4

1 A) Complete the following with an answer from brackets:

1. Plastic products are broken into small pieces due to ultraviolet rays emitted from the (sun - moon)
2. Seabirds feed on (microorganisms - small fish)
3. The energy of solid particles is the energy of liquid particles. (less than - more than)
4. The glass cup represents a state. (solid - liquid)

B) What is the tool used for measuring temperature?

.....

2 A) Put a (✓) for the correct statement and a (X) for the incorrect statement:

1. A food web is formed of many food chains linked together in the ecosystem. ()
2. When the water becomes warm the algae hides in the coral reefs. ()
3. When moving water from a pot to another, its shape changes. ()
4. Its possible to see the particles of vapor rising from a pot over a flame. ()

B) Vultures are considered scavengers.

Give reason.

3 A) Write the scientific term that each phrase indicates:

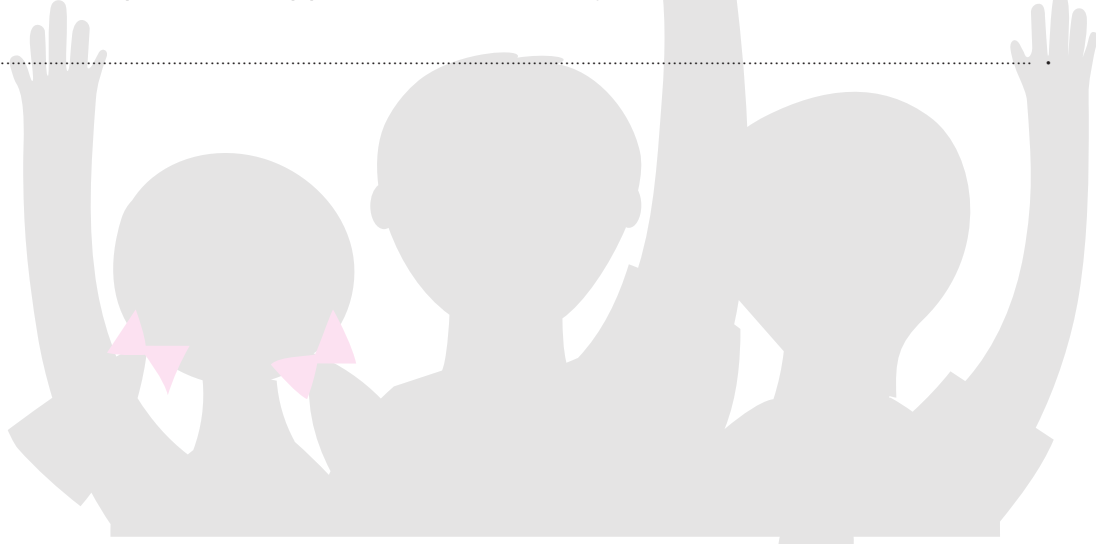
1. Animals that may feed on plants only or both plants and animals. (.....)
2. Pollution that happens as a result of throwing plastic wastes in the ocean. (.....)

3. An incoherent state of matter that can spread to fill any container in which it is placed. (.....)

4. A matter that has no fixed shape and can be poured. (.....)

B) What happens if..:

- Decomposers disappear from the ecosystem?



الشاطر

Test 5

1 A) Complete the following with an answer from brackets:

1. Houseflies are considered (decomposers - scavengers)
2. is one of the main reasons for the extinction of living organisms.
(Building nature reserves - The loss of natural habitats)
3. Small fish move to a new habitat upon the death of
(microorganisms - seabirds)
4. Measuring tape is used to measure (mass - length)

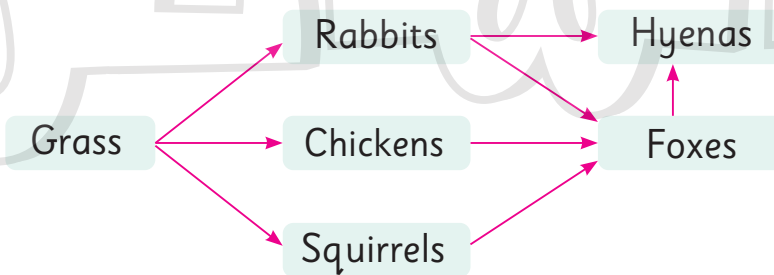
B) Sea turtles eat a lot of plastic wastes believing that it is jellyfish.

Give reason.

2 A) Put a (✓) for the correct statement and a (X) for the incorrect statement:

1. Light and rough seeds stick to human clothes without being noticed. ()
2. Microplastics help the food web to last in the marine environment. ()
3. The matter is composed of large particles. ()
4. The particles of the gaseous matter move faster than the particles of the solid and liquid matter. ()

B) What does the following shape represent?



.....

3 A) Choose from column (A) what suits column (B):

| (A) | (B) |
|--|--|
| 1. Bacteria get energy from | () a) the water temperature rises. |
| 2. If there's heavy rain in the desert | () b) the ecosystem may be damaged. |
| 3. Coral bleaching occurs when | () c) the ecosystem may be improved. |
| 4. Sea water, drinks and rain | () d) feeding on the remains of dead organisms. |
| | () e) are forms of liquid matter. |

B) Materials can be described by many properties.

Mention two of them.

Answers

Test (1)

Q 1: A)

1. food web 2. decomposing 3. gaseous 4. energy

B) - Damaging the marine environment.

- Affecting organisms living there negatively.
- Destroying the marine food web.

Q 2: A)

1. ✓ 2. ✓ 3. ✓ 4. ✗

B) Because they show the interactions between many food chains, unlike the food chain which shows the relationship between a few organisms.

Q 3: A)

1. both plants and animals 2. white 3. disturbance 4. liquid

B) Shape (1)

Test (2)

Q 1: A)

1. decomposition 2. rabbits 3. freely 4. Solids

B) Because man constructed roads and buildings, and because of dumping waste into water and overfishing.

Q 2: A)

1. ✗ 2. ✓ 3. ✓ 4. ✓

B) Shape (3)

Q 3: A)

1. decomposers 2. food web 3. ultraviolet 4. Sound

B) They fly long distances to a new natural environment to grow.

Test (3)

Q 1: A)

1. light 2. producers 3. search for small fish 4. solid

B) A lot of marine organisms, such as fish lose their habitat and food source.

Q 2: A)

1. ✓ 2. ✓ 3. ✓ 4. ✗

B) Shape (2)

Q 3: A)

1. Food web 2. Decomposers 3. Nursery 4. Matter

B) Because vinegar is a liquid

Test (4)

Q 1: A)

1. sun 2. small fish 3. less than 4. solid

B) The thermometer

Q 2: A)

1. ✓ 2. ✗ 3. ✓ 4. ✗

B) Because they feed on dead animals and plants.

Or: Because they break food down into small pieces.

Q 3: A)

1. Consumers 2. Plastic pollution 3. The gaseous state 4. The liquid matter

B) Nutrients do not return to the soil again.

Test (5)

Q 1: A)

1. scavengers 2. The loss of natural habitats 3. microorganisms 4. length

B) Because they don't know the difference between jellyfish and pieces of plastic in the water.

Q 2: A)

1. ✗ 2. ✗ 3. ✗ 4. ✓

B) A food web

Q 3: A)

1. d 2. b 3. a 4. e

B) Volume – shape – color – texture – temperature – degree of hardness

EL MOTAMYEZ - SCIENCE Questions Bank

NOVEMBER REVISION

Question 01

Choose the correct answers

- 1 All of the following cause destroying the ecosystem except
 (a) gentle rain (b) heavy rain (c) drought (d) pollution
- 2 In marine food webs, are considered producers.
 (a) shark (b) algae (c) bacteria (d) small fish
- 3 Energy could be recycled back into the ecosystem by the
 (a) predators (b) prey (c) consumers (d) decomposers
- 4 All the following organisms can make their own food, except
 (a) grass (b) rabbit (c) algae (d) microorganisms
- 5 is an area in the ocean where the small pieces of coral are nurtured
 (a) Coral reef (b) Nursery (c) Protectorate (d) Garden
- 6 If the grass is removed from an ecosystem, will die first.
 (a) producers (b) primary consumers (c) secondary consumers (d) decomposers
- 7 coral reefs get harmed when
 (a) water temperature increase (b) ingest microplastic (c) fish take it as a shelter (d) a,b
- 8 Healthy habitats contain
 (a) food (b) water (c) Shelter (d) all the previous
- 9 All the following examples represent human bad activities, except
 (a) overfishing (b) pollution (c) floods (d) cutting trees
- 10 Food chain describe the way of transferring among living organisms in ecosystem
 (a) consumers (b) decomposers (c) producer (d) energy
- 11 Which of the following from human activities which harm marine ecosystem
 (a) Over fishing (b) leakage of oil into water (c) throw wastes in water (d) all the previous answers
- 12 is one of the ways done by coastal communities to reduce plastic pollution.
 (a) Replacing wooden forks with plastic ones (b) Using grocery plastic bags (c) Using single-use plastics (d) Using cloth bags



- 13** Which of the following represents the correct marine food chain?
- (a) Algae → coral → shark → parrotfish (b) Algae → shark → coral → parrotfish
(c) Algae → shark → parrotfish → coral (d) Algae → coral → parrotfish → shark
- 14** When a predator feeds on a prey, is transferred between them
- (a) water (b) blood (c) motion (d) energy
- 15** live on the top of mountain cliffs and feed on small fish
- (a) Turtles (b) Corals (c) algae (d) Seabird
- 16** is/are considered as a top predator
- (a) tiger (b) rabbit (c) shark (d) a,c
- 17** In this food chain (Acacia Tree → Giraffe → Lion), the symbol → represents the transferring of
- (a) pollution (b) force (c) energy (d) motion
- 18**  How are solids unique from other forms of matter?
- (a) Solids take the shape of any container. (b) Solids have a definite size and shape.
(c) Solids can be poured (d) Solids fill whatever container they are put in
- 19**  All matter is made of
- (a) molecules (b) proteins (c) cells (d) atoms
- 20**  What makes gases different from other states of matter? Choose all that apply.
- (a) Gases can be poured. (b) Gases have a definite shape.
(c) Gases fill the shape of any container they are put in. (d) Gases do not have a definite shape.
- 21**  Which two properties of matter make it possible to make star-shaped ice cubes? Choose two answers.
- (a) Liquids take the shape of whatever container they are poured into (b) gases spread out to fill any container
(c) Solids have a definite shape. (d) Gases have no definite shape.
- 22**  Matter is?
- (a) Anything in the world. (b) anything that has mass and takes up space .
(c) only water in different states (d) only solids .
- 23**  How can a model be helpful?
- (a) Models give us step-by-step instructions about how to build something. (b) Models make something look better than it does in real life.
(c) it is in real life. (d) Models can help us see things that are too small or too big to observe



- 24 According to hardness feathers are.....
 (a) soft (b) hard (c) round (d) square
- 25 Ice is an example ofstate of water
 (a) solid (b) gas (c) liquid (d) a,b
- 26 has a definite size and no definite shape.
 (a) Air (b) Ice (c) Water (d) Wood
- 27 We can measure temperature by using
 (a) thermometer (b) scale (c) meter (d) measuring tab
- 28 All the following examples represent solid states, except
 (a) oil (b) book (c) humans (d) rocks
- 29 We can measure the weight using
 (a) measuring tape (b) scale (c) ruler (d) meter
- 30 During the eruption oflava come out
 (a) star (b) volcano (c) wooden piece (d) plastic piece
- 31 Which matter has a definite shape, definite volume?
 (a) Water (b) Ice (c) Oil (d) Air
- 32 All the following from properties of particles except.....
 (a) they are tiny (b) they can be seen by the eye (c) they are in continuous motion (d) they are identical
- 33 From the uses of models
 (a) they help us see and understand how things work. (b) they show us what we could not see
 (c) they are a great way to see many things at the right size. (d) all the previous
- 34 When you blow a balloon,
 (a) gas particles bounce against the inside of the balloon. (b) gas particles exert a force that creates its round shape .
 (c) gas particles exert a force that inflates the balloon . (d) all the previous

Question 02

PUT (√) OR (×)

- 1 Food webs show that many organisms share food resources within ecosystems. ()
- 2 Fungi - bacteria are considered an example of consumers. ()
- 3 Scavengers complete the decomposition process. ()



- 4 Food web made up of 2 food chains or more. ()
- 5 Scavengers come after decomposers in the food chain. ()
- 6 Decomposers include snails, slugs and crabs. ()
- 7 Decomposition process takes place on land and also ()
underwater.
- 8 **Next Concept** If organisms disappear in the ecosystem, this may lead to the ()
destroying the ecosystem.
- 9 Top predator are consumers that exist at the top of food ()
chains.
- 10 Using wooden forks and cloth grocery bags increase the ()
plastic pollution
- 11 Seabirds feed on small fish to get energy. ()
- 12 Using plastic bags is better than using cloth bags. ()
- 13 Gentle rain cause floods and damage the desert ecosystem ()
- 14 Microorganisms are producers in marine food chains ()
- 15 The human land activities on land have no effect on the ()
marine ecosystem.
- 16 Algae is example of producers in desert ecosystems. ()
- 17 If coral reefs are destroyed, many marine food chains will be ()
destroyed
- 18 Energy is transferred from prey to predators in any ecosystem. ()
- 19 If producers disappear, consumer may die ()
- 20 Recovering shelter and bringing back food resources help ()
animals to survive
- 21 Coral reefs are considered as living organisms ()
- 22 Plastic pollution harm marine environments ()
- 23 Restoration processes always take a little time ()
- 24 Corals and sea urchin are examples of top predator in marine ()
ecosystem
- 25 **Next Concept** When water temperatures decrease coral bleaching happens ()
- 26 The particles in ice move more freely than in water. ()
- 27 A solid keeps its shape when it is moved from one place to ()
another.
- 28 When you blow a balloon, gas particles exert a force that ()
inflates the balloon.
- 29 Water vapor is the solid state of water ()



- 30 Matter exists everywhere around us in nature. ()
- 31 All states of matter have the same properties ()
- 32 In gas state, the particles can keep their shape. ()
- 33 A liquid has a definite shape and volume. ()
- 34 Some matter is very small that we can't see as germs ()
- 35 Models help us see germs without a microscope ()
- 36 Particles of gas packed tightly with the others ()
- 37 Milk takes the shape of the container that it is poured in. ()
- 38 All matter made up of large moving particles ()
- 39 Water has no definite shape and size. ()
- 40 Matter exists in four states ()
- 41 Models are a great way to see many things at the right size. ()
- 42 A solar system model tells us about planets which is the biggest and which one is closest to earth ()
- 43 To show the particles of a gas, we stick the buttons with a very long distance between them. ()
- 44 We can see particles inside matter with the naked eye ()
- 45 To measure the tallness, we use scales ()
- 46 Some particles are so small that normal microscopes cannot detect them. ()
- 47 Models can be used to describe very small objects only ()
- 48 Ice melts to water by heating ()
- 49 The motion of particles in liquids is slower than that in solids. ()
- 50 Gases are not matter because they are invisible. ()

Question 03

Complete the following sentences using words between brackets

- 1 Sea birds feed on small fish, they build their nest (in water – on the top of mountain cliffs)
- 2 The main source of energy on the Earth, is..... (the sun - consumers)
- 3of energy transfers between living organisms in a food web (100% - 10%)
- 4 has bad effect on marine life (Plastic – coral reefs)
- 5 If the climate is suitable, the population of a species will..... (decrease - increase)



- 6 Coral reefs (filter – pollute) the sea water to get their food
- 7 When coral bleaching happen, coral reefs will
(die - grow healthy)
- 8 Water of lake (increase – decrease) during extreme hot climate
- 9 Habitat restoration projects (benefit – harm) the ecosystem
.....is from human activity which cause habitat loss
(add building and roads - recycle plastic)
- 11 The marine food web started with..... (algae - parrotfish)
- 12 can make their own food (fish – microorganisms)
- 13 If all producers die, rabbits will..... (die -not be affected)
- 14 Gentle rain..... desert ecosystem (harm – improve)
..... is one of the best ways to reduce plastic pollution in the ocean. (Throwing plastic in seas - Recycling plastics)
- 16 Habitat loss is one of the main causes of
(Increase the population- extinction)
- 17of water temperature causes the migration of microorganisms to another habitat. (increasing – decreasing)
- 18 leakage of oil into the water (harm – protect) marine ecosystem
- 19 Pollution harms ecosystem and the number of living organisms
(decrease – increase)
- 20 **Next Concept** When ice transfer from container (1) to different container (2) ,
the volume of ice will.....(increase - doesn't change)
- 21 Matter consists of identical in a state of motion.
(Particles – volume)
- 22 The model which shows us all the planets is called
(solar system model - germs)
- 23 In state, particles are very close to each other
(Solid – gas)
- 24 is the process of preserving vegetables to be fresh.
(Melting -Freezing)
- 25 All matter is made up of particles (tiny - large)
- 26 Matter can change from one state to another. (True – false)
In solid state, the particles
- 27 (Take the shape of their container - keep their shape)



- 28 A globe is a model that shows you
(the shape of Earth - the shape of the solar system)
- 29 The particles of state vibrate or move around its place
(liquid – solid)
- 30 In gas state particles move(slowly - quickly)
- 31 Scientists can use to see individual particles inside matter. (Magnifying lenses - electron microscopes)
- 32 is a substance that can be poured in any container.
(Juice - Ice)
- 33 model used to study very large things
(Germs - solar system)
- 34 Anything that has mass and occupies space is called
(energy - matter)
- 35 When ice cubes are exposed to heat,
(The particles move faster - the particles move slower)
- 36 The movement of particles of water are slower than that of.....
(Wood- oxygen)
- 37 Which of the following matter has a no definite volume and shape? (Ice - Air)
- 38 Some matter is very small and we cannot see it, such as
(germs - pencils)
- 39 is used to measure the mass of objects
(measuring cup – balance)

Question 04

Complete The Following Sentences

- 1 Food web is a model that describes flow between living organisms in an ecosystem.
- 2 process is considered as a nature's recycling factory.
- 3 The sun is the source of
- 4 When number of secondary consumers decrease , the number of primary consumers and the amount of producers
- 5 When water becomes warm, will move to cooler water.
- 6 Heavy rain causes which destroys desert ecosystems.
- 7 When water becomes too warm, corals will get rid of the, the coral turns into colour in their tissues.



- 8 Some human activities such as and may affect marine environments.
- 9 transfer between animals in a food web to help them do their activities and survive
- 10 is an area that provides food, water and shelter to all living organisms which live in.
- 11 is the area in the ocean where the small pieces of coral are nurtured.
- 12 Coral reefs provide marine organisms with
- 13 In food chain energy transfer from producer to
- 14 You can use a ruler to measure the of your book
- 15 and are examples of gaseous states.
- 16 Matter can exist in states, that are - and gas .
- 17 is amount of space occupied by matter
- 18 Motion of particles in liquids is than that in solids.
- 19 Gases have shape, volume
- 20 Solids have shape, volume
- 21 In state the particles have a lot of energy and move very freely .
- 22 A model of a germ helps us to see its shape without using a which is used to magnify tiny objects.
- 23 Scientists use to see tiny particles.
- 24 Matter consists of very tiny

Question 05

Write the scientific term for each of the following

- 1 It is a process through which humans make new products from waste materials instead of going into a landfill. ()
- 2 They are organisms that break down the bodies of dead animals into small pieces. ()
- 3 A natural process through which the nutrients found in dead organism's bodies return back to the ecosystem. ()
- 4 It is a process through which decomposers can recycle elements back into the soil. ()
- 5 A group of living organisms that complete the food chain cycle. ()



- 6 A group of interconnected food chains. ()
- 7 It is an area in the ocean where the small pieces of coral are nurtured until they can be moved back to the reefs. ()
- 8 A human activity that affects marine food webs and cause decreasing the number of fish. ()
- 9 Small pieces of plastic are formed due to the falling of the sun UV rays on it. ()
- 10 It is the returning of the land and water back to how they were before harm was done. ()
- 11 Small organisms live in cold cannot be seen by eyes considered as a producer in marine food web. ()
- 12 Flying living organisms that build their nests on the top of mountain cliffs and feed on small fish. ()
- 13 When water temperature rises up the coral reef turn completely into white. ()
- 14 They are consumers that exist at the top of food chains. ()
- 15 It is the number of organisms of one type of species living in an area. ()
- 16 An example of producers in the marine ecosystem. ()
- 17 Sun rays that break down plastic forming microplastic. ()
- 18 living organisms that return the energy back into the ecosystem. ()
- 19 Any change in numbers of organisms of one type of species. ()
- 20 They are consumers that feed on secondary consumers. ()
- 21 It is a model shows different feeding relationships among living organisms. ()
- 22 The state of matter that keep its shape and its particles packed tightly. ()
- 23 The state of matter in which particles have a lot of energy and move very freely. ()
- 24 A model of the whole world that is made in the shape of a large ball. ()
- 25 The state of matter that has fixed shape and volume. ()



- 26 It is a copy that is similar to the real thing. ()
- 27 A state of matter that can be poured in a container and take its shape. ()
- 28 A process in which ice changes into water. ()
- 29 A tool is used to measure the length of wall or room ()
- 30 A process in which water changes into ice. ()
- 31 State of matter which vibrate or move around their place ()
- 32 State of matter that has definite volume, no definite shape ()
- 33 State of matter that has no definite shape and volume ()
- 34 The building unit of matter. ()
- 35 It is a measure of the amount of matter. ()
- 36 The state of matter in which the particles are packed in a neat arrangement ()
- 37 A tool (device) used to see tiny particle such as a germs ()
- 38 The state of water when its temperature between 0°C and 100°C . ()
- 39 The state of matter in which particles spread out and escape quickly ()
- 40 The property of matter which is measured by the measuring cup. ()
- 41 A device that is used to measure the mass of apples. ()
- 42 It is anything that has mass and takes up space. ()
- 43 The property of matter which is measured by the balance. ()
- 44 A process that keeps vegetables fresh and ready to use for longer periods of time. ()

Question 06**Give reason for each of the following**

- 1 Scavengers come after decomposers in the food chain
.....
- 2 Soil fertility depends on decomposers.
.....



3 Decomposers have great importance

Next Concept

4 Gentle rains cause a healthy ecosystem.

5 Fire forest has negative effect on living organisms

6 Microplastics have a bad effect on corals.

7 Heavy rains cause an unhealthy ecosystem.

8 Plastics are so harmful for marine ecosystems.

9 The nursery plays an important role in the recovery of coral reefs

Next Concept

10 Coral reefs are important for marine organisms and human.

11 Air is matter.

12 Book has definite shape and definite volume.

13 Wood is solid matter

14 Milk is considered as a liquid

15 Gases can escape into space.

16 Steam is gas state.

17 Water vapor has no definite shape or volume

18 Solid particles can keep their shape.

19 Chef put vegetables in a freezer or a refrigerator.



Question 07

What happens if ?

- 1 If an organism in an ecosystem disappears
.....
- 2 Absence of all decomposers from an ecosystem.
.....
- Next Concept: 3 Grass disappears from an ecosystem.
(Concerning the primary and secondary consumers).
.....
- 4 When temperature of water contain microorganisms increases
.....
- 5 The number of one species increases a lot.
(Concerning food resources).
.....
- 6 When the grass removed from ecosystem
.....
- 7 Adding a road in the forest for moving cars.
.....
- 8 There are many top predators in a food web. (Concerning the number of prey).
.....
- 9 The water becomes warm (Concerning corals and microorganisms).
.....
- 10 Gentle rains fall on the desert.
.....
- 11 Sun UV rays fall on plastics for a period of time.
.....
- 12 Heavy rains fall on the desert
.....
- 13 The amount of plastics in water rises.
.....
- 14 When small lakes exposed to extreme hot climate
.....
- Next Concept: 15 When ice cubes exposed to heat (concerning the state and the speed of particles)
.....
- 16 Boiling water for long time
.....
- 17 You squeeze a balloon too hard.
.....



Question 08

choose from column (B) what suits it in column (A)

1

| (A) | | (B) | |
|-------|------------------------|-------|--|
| ① | Photosynthesis process | a | It is a process through which humans make new products from waste materials. |
| ② | Decomposition process | b | it is a process in which the nutrients are returned to the ecosystem. |
| ③ | Recycling | c | it is a process through which producers can make their own food. |

2

| (A) | | (B) | |
|-------|-------------|-------|--|
| ① | Decomposers | a | They are organisms that break down the bodies of dead animals into small pieces. |
| ② | Scavengers | b | Made up of several interconnected food chains. |
| ③ | Food web | c | A group of living organisms that complete the food chain cycle. |

3

| (A) | | (B) | |
|-------|-------------------|-------|---|
| ① | Microorganisms | a | It means the increase or decrease in the number of one species in any area. |
| ② | Population Change | b | They are small plastic pieces are even smaller than a grain of rice. |
| ③ | Microplastics | c | is a producer in the marine food web. |

4

| (A) | | (B) | |
|-------|--------------|-------|---|
| ① | Habitat | a | Is one of the main causes of extinction. |
| ② | nursery | b | the environment that the living organism lives in. |
| ③ | habitat loss | c | It is an area in the ocean where the small pieces of coral are nurtured . |



5

| (A) | | (B) | |
|-------|-----------------|-------|-----------------------------------|
| 1 | Coral bleaching | a | can make their own food. |
| 2 | Seabirds | b | means the coral turns into white. |
| 3 | Microorganisms | c | may cause extinction of animals. |
| 4 | Habitat Loss | d | dive to search for food. |

6

| (A) | | (B) | |
|-------|----------------------------|-------|------------------------------------|
| 1 | drought | a | desert ecosystem might get better. |
| 2 | gentle rain in the desert, | b | lead to floods. |
| 3 | heavy rain in the desert | c | ecosystem might destroy. |

7

| (A) | | (B) | |
|-------|--------|-------|--------------|
| 1 | oxygen | a | solid state |
| 2 | desk | b | liquid state |
| 3 | juice | c | gas state |

8

| (A) | | (B) | |
|-------|-------------|-------|--|
| 1 | matter | a | is a copy that is similar to the real thing help us to understand things we cannot see easily. |
| 2 | temperature | b | it is anything that has a mass and takes up space. |
| 3 | model | c | from properties of matter that used to measure how hot or cold the matter is. |

9

| (A) | | (B) | |
|-------|----------------|-------|--------------------------------|
| 1 | Thermometer | a | is used to measure height |
| 2 | Balance | b | is used to measure temperature |
| 3 | Measuring tape | c | is used to measure mass |



10

| (A) | | (B) | |
|-------|-----------|-------|--|
| ① | Matter | a | is a form of energy. |
| ② | Particles | b | is gas state |
| ③ | Sound | c | are in continuous motion inside the matter. |
| ④ | Oxygen | d | is anything that has mass and occupies space |

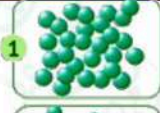

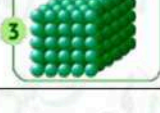
11

| (A) | | (B) | |
|-------|---------------------|-------|--|
| ① | Electron microscope | a | is used to see the individual particles. |
| ② | Globe | b | shows us Earth only. |
| ③ | Solar system model | c | shows us all the planets. |

12

| (A) | | (B) | |
|-------|-------------|-------|---|
| ① | Ice | a | takes the shape of container, can flow, and particles are not so near. |
| ② | Water | b | has fixed shape, and particles are very near each other. |
| ③ | Water vapor | c | does not have a fixed shape, takes up all the space of the container and the particles are far from each other. |

13

| (A) | | (B) | |
|-------|---|-------|--------------|
| ① |  | a | solid state |
| ② |  | b | liquid state |
| ③ |  | c | gas state |



Question 09

Complete the following using words between brackets

1

(energy - pollution – sea birds – coral bleaching)

- 1 When water temperatures rise happens
- 2 Throwing plastic wastes into a river causes water
- 3 When predator feed on prey , predator getfrom prey
- 4dive deep down into the sea to feed on small fish

2

(Smoke – cold – pollution – die – ash)

- 1 Microorganisms live inwater .
- 2 If the grass removed from ecosystem, primary consumers that feed on plants will
- 3is the harm that happen to air , soil and water due to human bad activities .
- 4andproduced from burning forest cause pollution which harm animals .

3

(sun light– flood – small fish -producer – tertiary consumer)

- 1 Heavy rain in the desert lead towhich harm ecosystem
- 2feed on microorganisms floating on the surface of the sea.
- 3 Microorganisms are considered as aliving organisms .
- 4 Microplastic form from broken down of plastic by UV rays of
- 5 the secondary consumer is considered as prey for

4

(Measuring tape – solid – mass – liquid)

- 1 Instate the particles are packed tightly with the others
- 2is state of matter that can be poured and take the shape of container .
- 3 Matter is anything that hasand occupies space.
- 4 You can useto measure the length of a table .



5

(globe – gas – force – solar system – volcano model)

- 1 When you blow a balloon, gas particles exertthat inflates the balloon.
- 2 The volume and shape change instate .
- 3 model shows us all the planets, whilemodel shows us Earth only.
- 4ooze liquid to model what happens during a real eruption.

6

(Solid – gas – electron microscope – earth)

- 1 The particles inside amatter move very freely.
- 2 A globe is a model of_.....
- 3matter has definite shape and volume .
- 4 Scientists can use special microscopes calledto see individual particles.

Question 10**Answer the following questions**

- 1 (Seabirds -microorganisms – small fish)

A - Rearrange to form a correct food chain.

B - Which of these organisms considered as a producer

- 2 Rearrange these organisms to make a correct food chain:

(a) Snake – Grass – Hawk – Rabbit

(b) Parrotfish – Algae – Shark – Coral

(c) sea star – algae – shark - clam

- 3 Cross out the odd word:

(a) - Oil – Milk – book – Tea

(b) - Air – Water vapor – Ice – Carbon dioxide

(c) - Water – Air – Light – Wood

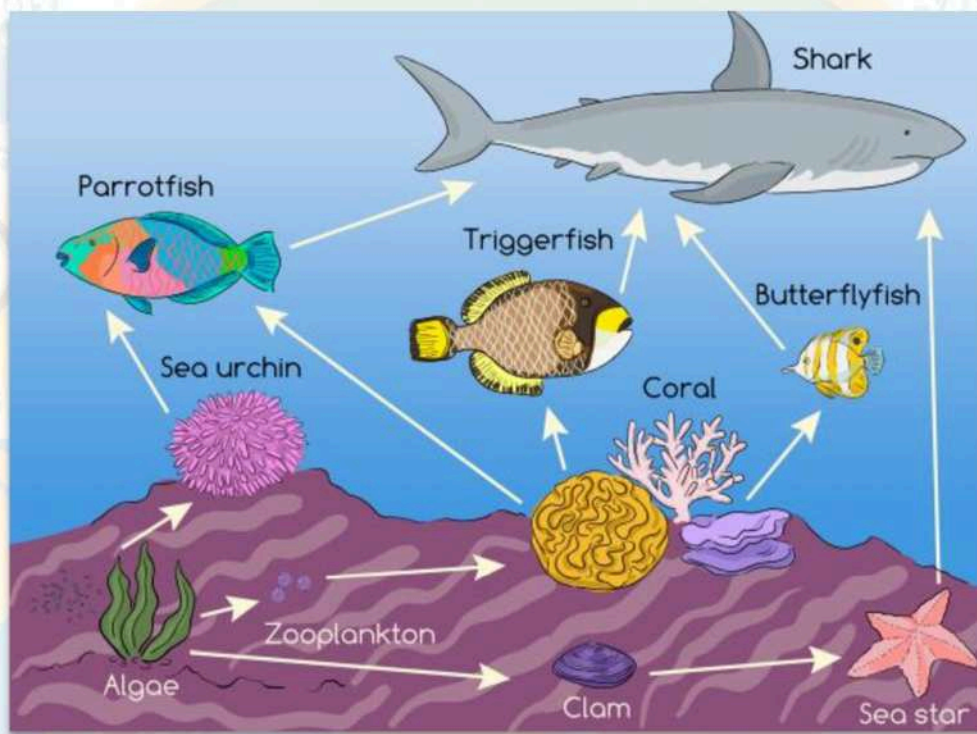


- 4 Classify the following materials in the following table into solids, liquids and gases:

(Desk – oil– juice –steam – salt – pencil – air -Book - Smoke – Milk – Gold – Human – Rock – Oxygen)

| | solid | liquid | gas |
|----------|-------|--------|-----|
| Examples | | | |

- 5 Study the following figure then answer the questions :



- a This figure represents..... ecosystem .
 b is considered as a producer .
 c energy transfer when shark feed on

أنتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق



بنك الاسئلة

الصف
الخامس
الابتدائي
٢٠٢٣

التميز

أ/ محمود سعيد



MODEL ANSWERS SCIENCE

على مقررات شهر نوفمبر

BY

MRS . AMIRA AHMED



CARTOON SCIENCE

الصف
الخامس



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يمكنكم الحصول على المذكرات والاختبارات من خلال مسح رمز ال QR Code
أو من خلال صفحة "التميز - أ/ محمود سعيد".
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EL MOTAMYEZ - SCIENCE Questions Bank

NOVEMBER REVISION

Question 01

Choose the correct answers

- 1 All of the following cause destroying the ecosystem except
 (a) gentle rain (b) heavy rain (c) drought (d) pollution
- 2 In marine food webs, are considered producers.
 (a) shark (b) algae (c) bacteria (d) small fish
- 3 Energy could be recycled back into the ecosystem by the
 (a) predators (b) prey (c) consumers (d) decomposers
- 4 All the following organisms can make their own food, except
 (a) grass (b) rabbit (c) algae (d) microorganisms
- 5 is an area in the ocean where the small pieces of coral are nurtured
 (a) Coral reef (b) Nursery (c) Protectorate (d) Garden
- 6 If the grass is removed from an ecosystem, will die first.
 (a) producers (b) primary consumers (c) secondary consumers (d) decomposers
- 7 coral reefs get harmed when
 (a) water temperature increase (b) ingest microplastic (c) fish take it as a shelter (d) a,b
- 8 Healthy habitats contain
 (a) food (b) water (c) Shelter (d) all the previous
- 9 All the following examples represent human bad activities, except
 (a) overfishing (b) pollution (c) floods (d) cutting trees
- 10 Food chain describe the way of transferring among living organisms in ecosystem
 (a) consumers (b) decomposers (c) producer (d) energy
- 11 Which of the following from human activities which harm marine ecosystem
 (a) Over fishing (b) leakage of oil into water (c) throw wastes in water (d) all the previous answers
- 12 is one of the ways done by coastal communities to reduce plastic pollution.
 Replacing wooden forks with plastic ones
 (a) (b) Using grocery plastic bags (c) Using single-use plastics (d) Using cloth bags



Which of the following represents the correct marine food chain?

- 13 **a** Algae → coral → shark → parrotfish **b** Algae → shark → coral → parrotfish
c Algae → shark → parrotfish → coral **d** Algae → coral → parrotfish → shark

When a predator feeds on a prey, is transferred between them

- 14 **a** water **b** blood **c** motion **d** energy

..... live on the top of mountain cliffs and feed on small fish

- 15 **a** Turtles **b** Corals **c** algae **d** Seabird

..... is/are considered as a top predator

- 16 **a** tiger **b** rabbit **c** shark **d** a.c


In this food chain (Acacia Tree → Giraffe → Lion), the symbol → represents the transferring of

- 17 **a** pollution **b** force **c** energy **d** motion


Next Concept

 How are solids unique from other forms of matter?

- 18 **a** Solids take the shape of any container. **b** Solids have a definite size and shape.
c Solids can be poured **d** Solids fill whatever container they are put in

19  All matter is made of

- a** molecules **b** proteins **c** cells **d** atoms

 What makes gases different from other states of matter?

Choose all that apply.

- 20 **a** Gases can be poured. **b** Gases have a definite shape.
c Gases fill the shape of any container they are put in. **d** Gases do not have a definite shape.

 Which two properties of matter make it possible to make star-shaped ice cubes? Choose two answers.

- 21 **a** Liquids take the shape of whatever container they are poured into **b** gases spread out to fill any container
c Solids have a definite shape. **d** Gases have no definite shape.

 Matter is

- 22 **a** Anything in the world. **b** anything that has mass and takes up space.
c only water in different states **d** only solids.

 How can a model be helpful?

Models give us step-by-step




- 23 **a** instructions about how to build something. **b** Models make something look better than it does in real life.
c it is in real life. **d** Models can help us see things that are too small or too big to observe



- 24 According to hardness feathers are.....
 (a) soft (b) hard (c) round (d) square
- 25 Ice is an example ofstate of water
 (a) solid (b) gas (c) liquid (d) a,b
- 26 has a definite size and no definite shape.
 (a) Air (b) Ice (c) Water (d) Wood
- We can measure temperature by using
 27 (a) thermometer (b) scale (c) meter (d) measuring tab
- All the following examples represent solid states, except
 28 (a) oil (b) book (c) humans (d) rocks
- We can measure the weight using
 29 (a) measuring tape (b) scale (c) ruler (d) meter
- During the eruption oflava come out
 30 (a) star (b) volcano (c) wooden piece (d) plastic piece
- Which matter has a definite shape, definite volume?
 31 (a) Water (b) Ice (c) Oil (d) Air
- All the following from properties of particles except.....
 32 (a) they are tiny (b) they can be seen by the eye (c) they are in continuous motion (d) they are identical
- From the uses of models
 33 (a) they help us see and understand how things work. (b) they show us what we could not see
 (c) they are a great way to see many things at the right size. (d) all the previous
- When you blow a balloon,
 34 (a) gas particles bounce against the inside of the balloon. (b) gas particles exert a force that creates its round shape .
 (c) gas particles exert a force that inflates the balloon . (d) all the previous

Question 02

PUT (√) OR (×)

- 1 Food webs show that many organisms share food resources within ecosystems. 
- 2 Fungi - bacteria are considered an example of consumers. 
- 3 Scavengers complete the decomposition process. 



- 4 Food web made up of 2 food chains or more. ✓
- 5 Scavengers come after decomposers in the food chain. ✗
- 6 Decomposers include snails, slugs and crabs. ✓
- 7 Decomposition process takes place on land and also underwater. ✓
- 8 If organisms disappear in the ecosystem, this may lead to the destroying the ecosystem. ✓
- 9 Top predator are consumers that exist at the top of food chains. ✓
- 10 Using wooden forks and cloth grocery bags increase the plastic pollution ✗
- 11 Seabirds feed on small fish to get energy. ✓
- 12 Using plastic bags is better than using cloth bags. ✗
- 13 Gentle rain cause floods and damage the desert ecosystem ✗
- 14 Microorganisms are producers in marine food chains ✓
- 15 The human land activities on land have no effect on the marine ecosystem. ✗
- 16 Algae is example of producers in desert ecosystems. ✗
- 17 If coral reefs are destroyed, many marine food chains will be destroyed ✓
- 18 Energy is transferred from prey to predators in any ecosystem. ✓
- 19 If producers disappear, consumer may die ✓
- 20 Recovering shelter and bringing back food resources help animals to survive ✓
- 21 Coral reefs are considered as living organisms ✓
- 22 Plastic pollution harm marine environments ✓
- 23 Restoration processes always take a little time ✗
- 24 Corals and sea urchin are examples of top predator in marine ecosystem ✗
- 25 When water temperatures decrease coral bleaching happens ✗
- 26 The particles in ice move more freely than in water. ✗
- 27 A solid keeps its shape when it is moved from one place to another. ✓
- 28 When you blow a balloon, gas particles exert a force that inflates the balloon. ✓
- 29 Water vapor is the solid state of water ✗



- 30 Matter exists everywhere around us in nature. ✓
- 31 All states of matter have the same properties ✗
- 32 In gas state, the particles can keep their shape. ✗
- 33 A liquid has a definite shape and volume. ✗
- 34 Some matter is very small that we can't see as germs ✓
- 35 Models help us see germs without a microscope ✓
- 36 Particles of gas packed tightly with the others ✗
- 37 Milk takes the shape of the container that it is poured in. ✓
- 38 All matter made up of large moving particles ✗
- 39 Water has no definite shape and size. ✗
- 40 Matter exists in four states ✗
- 41 Models are a great way to see many things at the right size. ✗
- 42 A solar system model tells us about planets which is the biggest and which one is closest to earth ✓
- 43 To show the particles of a gas, we stick the buttons with a very long distance between them. ✓
- 44 We can see particles inside matter with the naked eye ✗
- 45 To measure the tallness, we use scales ✗
- 46 Some particles are so small that normal microscopes cannot detect them. ✓
- 47 Models can be used to describe very small objects only ✗
- 48 Ice melts to water by heating ✓
- 49 The motion of particles in liquids is slower than that in solids. ✗
- 50 Gases are not matter because they are invisible. ✗

Question 03

Complete the following sentences using words between brackets

- 1 Sea birds feed on small fish, they build their nest (in water – on the top of mountain cliffs)
- 2 The main source of energy on the Earth, is..... (the sun - consumers)
- 3of energy transfers between living organisms in a food web (100% - 10%)
- 4 has bad effect on marine life (Plastic – coral reefs)
- 5 If the climate is suitable, the population of a species will..... (decrease - increase)



- 6 Coral reefs (**filter** – pollute) the sea water to get their food
- 7 When coral bleaching happen, coral reefs will
(**die** - grow healthy)
- 8 Water of lake (increase – **decrease**) during extreme hot climate
- 9 Habitat restoration projects (**benefit** – harm) the ecosystem
.....is from human activity which cause habitat loss
(**add building and roads** - recycle plastic)
- 11 The marine food web started with..... (**algae** - parrotfish)
- 12 can make their own food (fish – **microorganisms**)
- 13 If all producers die, rabbits will..... (**die** -not be affected)
- 14 Gentle rain..... desert ecosystem (harm – **improve**)
..... is one of the best ways to reduce plastic pollution in the ocean. (Throwing plastic in seas - **Recycling plastics**)
- 16 Habitat loss is one of the main causes of
(Increase the population- **extinction**)
- 17of water temperature causes the migration of microorganisms to another habitat. (**increasing** – decreasing)
- 18 leakage of oil into the water (**harm** – protect) marine ecosystem
- 19 Pollution harms ecosystem and the number of living organisms
(**decrease** – increase)
- 20 When ice transfer from container (1) to different container (2) , the volume of ice will.....(increase - **doesn't change**)
- 21 Matter consists of identical in a state of motion.
(**Particles** – volume)
- 22 The model which shows us all the planets is called
(**solar system model** - germs)
- 23 In state, particles are very close to each other
(**Solid** – gas)
- 24 is the process of preserving vegetables to be fresh.
(Melting - **Freezing**)
- 25 All matter is made up of particles (**tiny** - large)
- 26 Matter can change from one state to another. (**True** – false)
In solid state, the particles
(Take the shape of their container - **keep their shape**)


Next Concept



- 28 A globe is a model that shows you
(**the shape of Earth** - the shape of the solar system)
- 29 The particles of state vibrate or move around its place
(liquid - **solid**)
- 30 In gas state particles move(slowly - **quickly**)
- 31 Scientists can use to see individual particles inside matter. (Magnifying lenses - **electron microscopes**)
- 32 is a substance that can be poured in any container.
(**Juice** - Ice)
- 33 model used to study very large things
(Germs - **solar system**)
- 34 Anything that has mass and occupies space is called
(energy - **matter**)
- 35 When ice cubes are exposed to heat,
(**The particles move faster** - the particles move slower)
- 36 The movement of particles of water are slower than that of.....
(Wood- **oxygen**)
- 37 Which of the following matter has a no definite volume and shape? (Ice - **Air**)
- 38 Some matter is very small and we cannot see it, such as
(**germs** - pencils)
- 39 is used to measure the mass of objects
(measuring cup - **balance**)

Question 04

Complete The Following Sentences

- 1 Food web is a model that describes **energy** flow between living organisms in an ecosystem.
- 2 **Decomposition** process is considered as a nature's recycling factory.
- 3  The sun is the source of **Energy – light – warm .**
- 4 When number of secondary consumers decrease , the number of primary consumers **increase** and the amount of producers **decrease**
- 5 When water becomes warm, **microorganism** will move to cooler water.
- 6 Heavy rain causes **flooding** which destroys desert ecosystems.
- 7 When water becomes too warm, corals will get rid of the **algae**, the coral turns into **white** colour in their tissues.



- 8 Some human activities such as **overfishing** and **ocean pollution** may affect marine environments.
- 9 **Energy** transfer between animals in a food web to help them do their activities and survive
- 10 **Ecosystem** is an area that provides food, water and shelter to all living organisms which live in.
- 11 **Nursery** is the area in the ocean where the small pieces of coral are nurtured.
- 12 Coral reefs provide marine organisms with **food – shelter**
- 13 In food chain energy transfer from producer to **consumer**
- 14 You can use a ruler to measure the **length** of your book
- 15 **Air – oxygen** and **water vapor** are examples of gaseous states.
- 16 Matter can exist in **three** states, that are **solid – liquid** and gas .
- 17 **Volume** is amount of space occupied by matter
- 18 Motion of particles in liquids is **faster** than that in solids.
- 19 Gases have **no definite** shape, **no definite** volume
- 20 Solids have **definite** shape, **definite** volume
- 21 In **gas** state the particles have a lot of energy and move very freely .
- 22 A model of a germ helps us to see its shape without using a **Microscope** which is used to magnify tiny objects.
- 23 Scientists use **microscope** to see tiny particles.
- 24 Matter consists of very tiny **identical particles**

Question 05

Write the scientific term for each of the following

- 1 It is a process through which humans make new products from waste materials instead of going into a landfill. **recycling process**
- 2 They are organisms that break down the bodies of dead animals into small pieces. **scavengers**
- 3 A natural process through which the nutrients found in dead organism's bodies return back to the ecosystem. **decomposition process**
- 4 It is a process through which decomposers can recycle elements back into the soil. **Decomposition process**
- 5 A group of living organisms that complete the food chain cycle. **Decomposers**





6

A group of interconnected food chains.

food web

Next Concept

7

It is an area in the ocean where the small pieces of coral are nurtured until they can be moved back to the reefs.

The nursery

8

A human activity that affects marine food webs and cause decreasing the number of fish.

Over fishing

9

Small pieces of plastic are formed due to the falling of the sun UV rays on it.

Microplastics

10

It is the returning of the land and water back to how they were before harm was done.

Restoration project

11

Small organisms live in cold cannot be seen by eyes considered as a producer in marine food web.

microorganism

12

Flying living organisms that build their nests on the top of mountain cliffs and feed on small fish.

Sea birds

13

When water temperature rises up the coral reef turn completely into white.

Coral bleaching

14

They are consumers that exist at the top of food chains.

Top predator

15

It is the number of organisms of one type of species living in an area.

population

16

An example of producers in the marine ecosystem.

Green algae(or) microorganism

17

Sun rays that break down plastic forming microplastic.

UV rays

18

living organisms that return the energy back into the ecosystem.

Decomposers

19

Any change in numbers of organisms of one type of species.

population change

20

They are consumers that feed on secondary consumers.

tertiary consumers

21

It is a model shows different feeding relationships among living organisms.

food web

Next Concept

22

The state of matter that keep its shape and its particles packed tightly.

Solid state

23

The state of matter in which particles have a lot of energy and move very freely.

gas state

24

A model of the whole world that is made in the shape of a large ball.

Globe

25

The state of matter that has fixed shape and volume.

Solid state



- 26 It is a copy that is similar to the real thing. **Model**
- 27 A state of matter that can be poured in a container and take its shape. **liquid**
- 28 A process in which ice changes into water. **Melting**
- 29 A tool is used to measure the length of wall or room **Tap measure**
- 30 A process in which water changes into ice. **Freezing**
- 31 State of matter which vibrate or move around their place **solid state**
- 32 State of matter that has definite volume, no definite shape **liquid state**
- 33 State of matter that has no definite shape and volume **gas state**
- 34 The building unit of matter. **particles**
- 35 It is a measure of the amount of matter. **mass**
- 36 The state of matter in which the particles are packed in a neat arrangement **solid**
- 37 A tool (device) used to see tiny particle such as a germs **Electron microscope**
- 38 The state of water when its temperature between 0°C and 100°C. **liquid state**
- 39 The state of matter in which particles spread out and escape quickly **gas**
- 40 The property of matter which is measured by the measuring cup. **Volume**
- 41 A device that is used to measure the mass of apples. **Scale - Balance**
- 42 It is anything that has mass and takes up space. **Matter**
- 43 The property of matter which is measured by the balance. **Mass**
- 44 A process that keeps vegetables fresh and ready to use for longer periods of time. **Freezing**

Question 06**Give reason for each of the following**

- 1 Scavengers come after decomposers in the food chain
Because scavengers feed on dead bodies by breaking them into small pieces.
 Soil fertility depends on decomposers.



- 2 Because decomposer recycles nutrients back into the soil.
- 3 Decomposers have great importance
Because it recycles nutrients back into the ecosystem – increase soil fertility.
- Next Concept →
- 4 Gentle rains cause a healthy ecosystem.
Because gentle rain benefit. producers (let grass grow) .
- 5 Fire forest has negative effect on living organisms
Fire forest produce smoke which causes difficulty breathing
- Microplastics have a bad effect on corals.
- 6 Corals filter sea water to get food, during eating it ingests microplastics which is toxic.
- 7 Heavy rains cause an unhealthy ecosystem.
Because heavy rain leads to floods.
- 8 Plastics are so harmful for marine ecosystems.
Because plastic is toxic and sharp.
- The nursery plays an important role in the recovery of coral reefs
- 9 In nursery small pieces of corals are nurtured and produce healthy coral can grow – reproduce to make a thriving reef again.
- Coral reefs are important for marine organisms and human.
- 10 Coral reef provide food and shelter for marine organisms, and important for tourism (fishing or diving).
- Air is matter.
- 11 Because it has a mass and take a space.
- 12 Book has definite shape and definite volume.
because wood is solid.
- Wood is solid matter
- 13 Because wood has definite shape, definite volume.
- Milk is considered as a liquid
- 14 Because it has a definite volume and no definite shape.
- Gases can escape into space.
- 15 Because gas has no definite shape and volume and its particles are not held together, move very quickly .
- Steam is gas state.
- 16 Because it has no definite shape or volume.
- Water vapor has no definite shape or volume
- 17 Because water vapor is gas.



- 18 Solid particles can keep their shape.
Because its particles are very close to each other
- 19 Chef put vegetables in a freezer or a refrigerator.
To freeze it and to keep them fresh for longer time.

Question 07

What happens if ?

- 1 If an organism in an ecosystem disappears
The food web will be affected.
- 2 Absence of all decomposers from an ecosystem.
Dead organisms will not be decomposed and their nutrients will not return back to the soil.
- Next Concept → Grass disappears from an ecosystem.
- 3 (Concerning the primary and secondary consumers).
Primary consumers will die quickly, secondary consumers will migrate
- 4 When temperature of water contain microorganisms increases
microorganisms and fish that feed on it will move away to a cooler water
- 5 The number of one species increases a lot.
(Concerning food resources).
Food resources will disappear they will not find enough food to eat so they will die
- 6 When the grass removed from ecosystem
Primary consumers that feed on plants die quickly
- 7 Adding a road in the forest for moving cars.
It causes habitat loss.
- 8 There are many top predators in a food web. (Concerning the number of prey).
Ecosystems get harmed because predators eat all prey
- 9 The water becomes warm (Concerning corals and microorganisms).
Coral get rid of algae, coral color turn to white, microorganisms will move to cool water
- 10 Gentle rains fall on the desert.
Grass will grow (healthy ecosystem)
- 11 Sun UV rays fall on plastics for a period of time.
microplastic will be formed



- 12 Heavy rains fall on the desert
lead to floods

The amount of plastics in water rises.

- 13 Causes plastic pollution which harm the marine organisms because plastic is toxic and sharp

When small lakes exposed to extreme hot climate

- 14 The water in lake will evaporate and the lake may completely disappear

Next Concept

When ice cubes exposed to heat (concerning the state and the speed of particles)

- 15 It will melt Speed of particles will increase and change from solid state to liquid state

Boiling water for long time

- 16 It will evaporate (change from liquid state to gas state)

You squeeze a balloon too hard.

- 17 The balloon pops and the gas particles escape into the air

Question 08

choose from column (B) what suits it in column (A)

1

| (A) | | (B) | | |
|-------|------------------------|-------|--|-------|
| 1 | Photosynthesis process | a | It is a process through which humans make new products from waste materials. | 1 - c |
| 2 | Decomposition process | b | it is a process in which the nutrients are returned to the ecosystem. | 2 - b |
| 3 | Recycling | c | it is a process through which producers can make their own food. | 3 - a |

2

| (A) | | (B) | | |
|-------|-------------|-------|--|-------|
| ① | Decomposers | ① a | They are organisms that break down the bodies of dead animals into small pieces. | 1 - c |
| ② | Scavengers | ② b | Made up of several interconnected food chains. | 2 - a |
| ③ | Food web | ③ c | A group of living organisms that complete the food chain cycle. | 3 - b |



3

| (A) | | (B) | | |
|-------|-------------------|-------|---|-------|
| 1 | Microorganisms | a | It means the increase or decrease in the number of one species in any area. | 1 - c |
| 2 | Population Change | b | They are small plastic pieces are even smaller than a grain of rice. | 2 - a |
| 3 | Microplastics | c | is a producer in the marine food web. | 3 - b |

4

| (A) | | (B) | | |
|-----|--------------|-----|---|-------|
| 1 | Habitat | a | Is one of the main causes of extinction. | 1 - b |
| 2 | nursery | b | the environment that the living organism lives in. | 2 - c |
| 3 | habitat loss | c | It is an area in the ocean where the small pieces of coral are nurtured . | 3 - a |

5

| (A) | | (B) | | |
|-------|-----------------|-------|-----------------------------------|-------|
| 1 | Coral bleaching | a | can make their own food. | 1 - b |
| 2 | Seabirds | b | means the coral turns into white. | 2 - d |
| 3 | Microorganisms | c | may cause extinction of animals. | 3 - a |
| 4 | Habitat Loss | d | dive to search for food. | 4 - c |

6

| (A) | | (B) | | |
|-------|----------------------------|-------|------------------------------------|-----|
| 1 | drought | a | desert ecosystem might get better. | 1-c |
| 2 | gentle rain in the desert, | b | lead to floods. | 2-a |
| 3 | heavy rain in the desert | c | ecosystem might destroy. | 3-b |

7

| (A) | | (B) | | |
|-------|--------|-------|--------------|-----|
| 1 | oxygen | a | solid state | 1-c |
| 2 | desk | b | liquid state | 2-a |
| 3 | juice | c | gas state | 3-b |



8

| (A) | | (B) | | |
|-------|-------------|-------|--|------|
| ① | matter | Ⓐ | is a copy that is similar to the real thing help us to understand things we cannot see easily. | 1- b |
| ② | temperature | Ⓑ | it is anything that has a mass and takes up space. | 2- c |
| ③ | model | Ⓒ | from properties of matter that used to measure how hot or cold the matter is. | 3- a |

9

| (A) | | (B) | | |
|-------|----------------|-------|--------------------------------|-------|
| ① | Thermometer | Ⓐ | is used to measure height | 1 - b |
| ② | Balance | Ⓑ | is used to measure temperature | 2 - c |
| ③ | Measuring tape | Ⓒ | is used to measure mass | 3 - a |

10

| (A) | | (B) | | |
|-------|-----------|-------|--|-----|
| ① | Matter | Ⓐ | is a form of energy. | 1-d |
| ② | Particles | Ⓑ | is gas state | 2-c |
| ③ | Sound | Ⓒ | are in continuous motion inside the matter. | 3-a |
| ④ | Oxygen | Ⓓ | is anything that has mass and occupies space | 4-b |

11




| (A) | | (B) | | |
|-------|---------------------|-------|--|-------|
| ① | Electron microscope | a | is used to see the individual particles. | 1 - a |
| ② | Globe | b | shows us Earth only. | 2 - b |
| ③ | Solar system model | c | shows us all the planets. | 3 - c |

12

| (A) | | (B) | | |
|-------|-------------|-------|---|-------|
| ① | Ice | a | takes the shape of container, can flow, and particles are not so near. | 1 - b |
| ② | Water | b | has fixed shape, and particles are very near each other. | 2 - a |
| ③ | Water vapor | c | does not have a fixed shape, takes up all the space of the container and the particles are far from each other. | 3 - c |



13

| (A) | | (B) | | |
|-------|---|-------|--------------|-----|
| 1 |  | a | solid state | 1-b |
| 2 |  | b | liquid state | 2-c |
| 3 |  | c | gas state | 3-a |

Question 09

Complete the following using words between brackets

1

(energy - pollution – sea birds – coral bleaching)

- 1 When water temperatures rise **Coral bleaching** happens
- 2 Throwing plastic wastes into a river causes water **pollution**
- 3 When predator feed on prey , predator get **energy** from prey
- 4 **Sea birds** dive deep down into the sea to feed on small fish

2

(Smoke – cold – pollution – die – ash)

- 1 Microorganisms live in **cold** water .
- 2 If the grass removed from ecosystem, primary consumers that feed on plants will **die** .
- 3 **pollution** is the harm that happen to air , soil and water due to human bad activities .
- 4 **smoke** and **ash** produced from burning forest cause pollution which harm animals .

3

(sun light– flood – small fish -producer – tertiary consumer)

- 1 Heavy rain in the desert lead to **Flood** which harm ecosystem
- 2 **Small fish** feed on microorganisms floating on the surface of the sea.
- 3 Microorganisms are considered as a **producers** living organisms .
- 4 Microplastic form from broken down of plastic by UV rays of **Sun light**
- 5 the secondary consumer is considered as prey for **tertiary consumer** .



4

(Measuring tape – solid – mass – liquid)

- 1 In **solid** state the particles are packed tightly with the others
- 2 **liquid** is state of matter that can be poured and take the shape of container .
- 3 Matter is anything that has **mass** and occupies space.
- 4 You can use **measuring tape** to measure the length of a table .

5

(globe – gas – force – solar system – volcano model)

- 1 When you blow a balloon, gas particles exert **a force** that inflates the balloon.
- 2 The volume and shape change in **gas** state .
- 3 **Solar system** model shows us all the planets, while **globe** model shows us Earth only.
- 4 **Volcano model** ooze liquid to model what happens during a real eruption.

6

(Solid – gas – electron microscope – earth)

- 1 The particles inside a **gas** matter move very freely.
- 2 A globe is a model of **earth**.
- 3 **Solid** matter has definite shape and volume .
- 4 Scientists can use special microscopes called **electron microscope** to see individual particles.

Question 10

Answer the following questions

1

(Seabirds -microorganisms – small fish)

A - Rearrange to form a correct food chain.

microorganisms → small fish → seabirds

B - Which of these organisms considered as a producer

microorganisms

2 Rearrange these organisms to make a correct food chain:

(a) Snake – Grass – Hawk – Rabbit

Grass → rabbit → snake → hawk

(b) Parrotfish – Algae – Shark – Coral

Algae → coral → parrotfish → shark

(c) sea star – algae – shark – clam

Algae → Clam → sea star → shark

3 Cross out the odd word:

(a) - Oil – Milk – book – Tea

book

(b) - Air – Water vapor – Ice – Carbon dioxide

ice

(c) - Water – Air – Light – Wood

Light

4 Classify the following materials in the following table into solids, liquids and gases:

(Desk – oil – juice – steam – salt – pencil – air – Book – Smoke – Milk – Gold – Human – Rock – Oxygen)

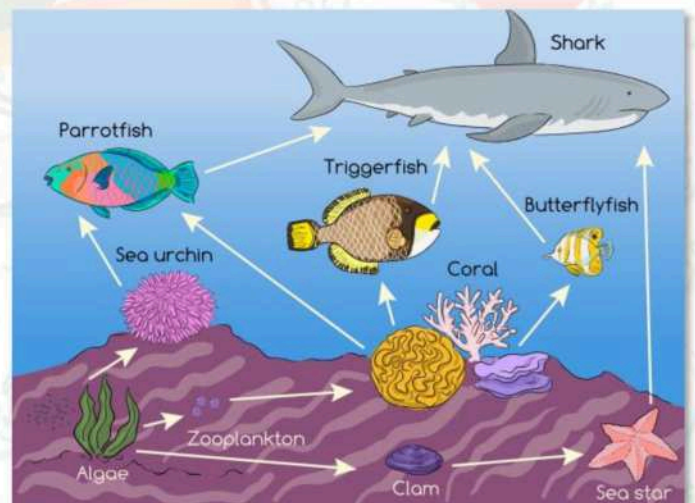
| | solid | liquid | gas |
|----------|--|---------------------------|----------------------------------|
| Examples | desk, pencil, salt, book, human, rock | oil – juice – milk | steam, air, smoke, oxygen |

5 Study the following figure then answer the questions :

a This figure represents marine ecosystem .

b algae is considered as a producer .

c energy transfer when shark feed on parrot fish .



أنتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق





November Revision

Mr. Ahmed Elbasha

✱ (1) Write the scientific term:

- 1) They are consumers which feed on secondary consumers. (.....)
- 2) They are living organisms that include bacteria and fungi, which return energy back to the soil. (.....)
- 3) It is the number of organisms of one type of species live in an area. (.....)
- 4) They are organisms that are too small for people to see with only their eyes. (.....)
- 5) It is a condition in which coral reefs turn completely into white (.....)
- 6) They are rays coming from the Sun that break down plastic products into microplastics (.....)
- 7) Small pieces of plastics in the size of rice grains and they cause harms to marine organisms. (.....)
- 8) A process of returning a habitat back to its natural state before harm was done. (.....)
- 9) Anything that has a mass and a volume. (.....)
- 10) A property of matter by which we can distinguish between hot and cold objects (.....)
- 11) The state of water after its freezing . (.....)
- 12) The state of matter that has definite volume and shape. (.....)
- 13) The state of matter that is characterized by having a definite volume but it doesn't have a definite shape (.....)
- 14) Substances that take the shape and the volume of their containers (.....)

- 15) The state of matter that has a lot of spaces between its particles (.....)
-
- 16) The tool used to measure the length of a wall. (.....)
-
- 17) A state of matter that has a fixed shape. (.....)
-
- 18) A device used to examine objects that are too small to be seen with the naked eye. (.....)
-
- 19) A state of matter that its particles vibrate around their place. (.....)
-
- 20) A state of matter that its particles move faster than solids and have a definite volume. (.....)
-
- 21) The state of water after its heating for high temperatures (.....)
-
- 22) A model of the whole world that is made in the shape of a large ball. (.....)
-
- 23) A copy that is similar to a real thing which we cannot observe with our eyes. (.....)

✱(2) Complete the following:

1. If producers increase in an ecosystem, the number of primary consumers will
2. Heavy rain causes which destroys desert ecosystems.
3. Predators of living organisms may be for other living organisms.
4. Secondary consumers feed on consumers.
5. All energy in all living organisms return back to the environment by the help of organisms.
6. States of matter are, and
7. Iron and gold are examples of state of matter.
8. According to temperature, matter can be classified into and objects.
9. The state of an ice cube is , while the state of the air we breathe is
- 10.States of matter are , and gases.
- 11.In the matter, the volume and shape don't change.
- 12.Water is a matter in state, while water vapor is a matter in state.
- 13.Matter that takes the shape of its container, but its volume cannot be changed is
- 14.The of a pen can be measured by using a ruler.
- 15.Particles of matter are very close to each other.
- 16.Any matter is made up of millions of tiny that we cannot see with our eyes.
- 17.Particles of matter are packed closely together.
- 18.Water evaporates when it is exposed to a temperature.
- 19.We can use ping pong balls to describe the movement of of the three states of matter.
- 20.To describe the particles of a matter in state by modeling balls, we should put the balls packed together.

☀(3) Choose the right answer :

1. The Sun provides the Earth with

- a. light only. b. warm only. c. light and warm. d. light and sound.

2. On extreme hot climate, the water of a lake

- a. increases due to evaporation. b. decreases due to evaporation.
c. changes into ice. d. has a lower temperature.

3. All the following factors pollute the water, except

- a. sunlight. b. animals wastes. c. human wastes. d. plastic garbage.

4. All the following are affected by water pollution, except

- a. the soil. b. the Sun. c. the animals. d. the plants.

5. Overfishing and throwing plastic garbage in the sea affect the survival of directly.

- a. desert organisms b. marine organisms c. rainforest organisms d. rodents

6. When there is a gentle rain in a desert ecosystem, this ecosystem may be

- a. harmed. b. improved. c. destroyed. d. collapsed.

7. All the following are top predators, except

- a. hawks. b. tigers. c. butterflyfish. d. lions.

8. If there is a tertiary consumer in a food chain, this means that there is

- a. a primary consumer only.
b. a secondary consumer only.
c. a primary and a secondary consumer.
d. neither primary nor secondary consumers.

9. In a food chain, the energy transfer

- a. from a predator to a prey. b. from a prey to a predator.
c. from a predator to a producer. d. from a consumer to a producer.

10.If all grasses were removed completely from an ecosystem, rabbits in this ecosystem will

- a. increase. b. decrease. c. die. d. not be affected.

11.It is better for a predator in a food web, to have

- a. only one type of decomposers. b. more than one type of decomposers.
c. only one type of prey. d. more than one type of prey.

12. Pollutants produced from a forest fire harm all the following, except

- a. air. b. respiratory system. c. grasses. d. sunlight.

13. As a result of pollution in an ecosystem, the number of living organisms

- a. decreases. b. increases. c. doesn't change. d. is doubled.

14. Any increase or decrease in the number of organisms of one type of species is known as

- a. an ecosystem. b. adaptation.
c. a climate change. d. a population change.

15. Healthy marine environment is important for survival of

- a. humans. b. lions. c. fish. d. deer.

16. When the marine habitats are destroyed, the number of living organisms in their food webs is

- a. increased. b. decreased. c. not changed. d. doubled.

17. When water temperature increases, algae leave tissues of .. , so they become bleached.

- a. seabirds b. coral reefs c. clam d. sharks

18. Plastic waste materials cause all the following to the marine environment, except

- a. breakdown in food webs. b. pollution of water.
c. increasing of population. d. decreasing of population.

19. Coral reefs are considered as resources of

- a. food only. b. shelter only.
c. food and shelter. d. food and pollution.

20. Which of the following human activities don't harm a marine ecosystem ?

- a. Throwing plastic products in water.
b. Leakage of oil into water.
c. Overfishing and damaging of coral reefs.
d. Recycling of plastic products.

21. Habitat restoration projects allow scientists to that occur to an ecosystem.

- a. increase harms b. decrease harms
c. keep harms d. increase damages

22.The area in which the scientists take care of small pieces of coral until they grow up is known as

- a. food chain. b. food web. c. grassland. d. nursery.

23."Zero plastics" project that is applied in Egyptian coastal communities, means that the using of plastic products decreases by

- a. 0% b. 10% c. 90% d. 100%

24.Matter be can be found instates.

- a. 2 b. 3 c. 6 d. 7

25.Water can be found in a solid state in the form of

- a. ice. b. steam. c. sea water. d. boiling water.

26.An example of a gas is

- a. chocolate. b. rock. c. pencil. d. oxygen.

27.The amount of space that a matter takes up is called

- a. volume. b. mass. c. weight. d. area.

28.All of these substances are liquids, except

- a. oil. b. milk. c. stone. d. vinegar.

29.Liquids have definite, but theirare not definite.

- a. volume-shape b. color-volume
c. shape – volume d. color-shape

30.Both and are solids as they have definite shape and volume.

- a. wood-oxygen b. milk-iron
c. wood-iron d. milk-oxygen

31.Both and take the shape of their container.

- a. air-plastic b. water-air
c. wood-air d. water-plastic

32.Gases have shape and volume.

- a. definite-definite b. no definite-no definite
c. definite-no definite d. no definite-definite

33.Particles of are very close to each other.

- a. gold b. steam c. milk d. oxygen

34.To measure the length of a table, we can use a

- a. thermometer.
- b. balance scale.
- c. cylinder.
- d. measuring tape .

35.The shape of is fixed as it is a matter.

- a. gold- liquid
- b. water- liquid
- c. air-gas
- d. gold-solid

36.Oil takes the of its container.

- a. volume
- b. shape
- c. color
- d. mass

37.Particles of vibrate around their place.

- a. glass
- b. air
- c. oxygen
- d. water

38.By changing the of a matter, its state may change.

- a. mass
- b. volume
- c. color
- d. temperature

39.If water is exposed to high temperature, its particles will move and the water may change into

- a. faster-ice.
- b. faster-water vapor.
- c. slower-ice.
- d. slower-water vapor.

40.We can use a model to study very large things such as

- a. solar system.
- b. germs.
- c. microbes.
- d. viruses.

41.By blowing up a balloon,

- a. its volume decreases.
- b. its volume increases.
- c. its color changes.
- d. its mass doesn't change.

42.To examine the structure of tiny particles of a matter, we can use

- a. microscopes.
- b. balances.
- c. thermometers.
- d. rulers.

43.The model of the Earth shows how much of its surface is covered with

- a. gasoline.
- b. water.
- c. milk.
- d. animals.

44.We can see all planets of the system including the Earth by using a model.

- a. solar
- b. digestive
- c. respiratory
- d. muscular

☀(4) Put (√) or (X)

1. If producers removed from an ecosystem, consumers will need to move away. ()
2. Overfishing is one of the climate changes that affects the marine ecosystem. ()
3. It is better to recycle the waste materials than throwing them in rivers and seas. ()
4. Food webs don't change if their surrounding environments get changed. ()
5. If there is a heavy rain in a desert ecosystem, it will be harmed. ()
6. Top predators are decomposers that present at the top of food chains. ()
7. Ecosystem can be effected by climate changes, pollution and human activities. ()
8. Most of living organisms are prey for some animals and also predators for others at the same time. ()
9. The Sun produces energy that decomposers use to make their food. ()
10. The soil fertility depends on decomposers. ()
11. Any food chain can be formed of producers only. ()
12. A desert food chain doesn't contain any type of fish or sharks. ()
13. If the climate change is unsuitable, the population of a species decreases. ()
14. In an ecosystem, all species depend on other species for survival. ()
15. Seabirds eat small fish that swim near the water surface. ()
16. Healthy habitats provide living organisms with clean air, healthy food and water. ()
17. Healthy coral reefs have no benefit to fish but they are important for tourism. ()
18. Living organisms in seas and oceans cannot differentiate between real food and plastic waste materials. ()
19. UV rays coming from the Sun, break down plastic wastes into microplastics. ()
20. The polluted water has a positive effect on coral reefs. ()
21. If coral reefs are destroyed, many marine food chains will be destroyed. ()
22. Coral reefs are considered as a suitable habitat for sharks. ()
23. People near the coastal areas must replace plastic bags with cloth one. ()
24. Ice is considered the solid state of matter. ()
25. Matter never changes from one form to another. ()

| | |
|--|--------|
| 26. Volume is the space that is taken up by a matter. | () |
| 27. All objects can be seen with the naked eye. | () |
| 28. Liquids don't take the shape of the container that they are placed in. | () |
| 29. Both gold and milk have definite shape. | () |
| 30. Gases keep their shape and volume whatever the container changes. | () |
| 31. On transferring water from one pot to another, its volume will change. | () |
| 32. Liquid particles move freely more than solid particles. | () |
| 33. Gases don't have a definite shape or volume. | () |
| 34. The speed of water vapor particles is slower than that of water particles. | () |
| 35. Germs are very large organisms that can be seen with the naked eye. | () |
| 36. Air particles are visible as they are very large particles. | () |
| 37. Solar system contains only one planet which is the Earth. | () |
| 38. A model of an airplane shows us how it flies up into the air. | () |

☀(5) Choose from column (B) what suits it in column (A) :

1

| (A) | (B) |
|--|--|
| 1. There is a heavy rain in a desert. | a. this ecosystem may be improved due to melting of snow, where plant resources and animals shelters appear again. |
| 2. There is a gentle rain in a rainforest. | b. this ecosystem may be harmed due to the decrease of the amount of rain, where plant resources and animals shelters may be affected. |
| | c. this ecosystem may be destroyed due to flooding, where plant resources and animals shelters removed away |

1-

2-

2

| (A) | (B) |
|----------|------------------------|
| 1. Water | a. is not a matter. |
| 2. Sand | b. is a liquid matter. |
| 3. Air | c. is a gas matter. |
| | d. is a solid matter. |

1-

2-

3-

3

| (A) | (B) |
|---------|--------------------------------------|
| 1. Milk | a. its particles are packed tightly. |
| 2. Air | b. its particles have medium energy. |
| 3. Gold | c. its particles move very freely. |
| | d. its particles don't move at all. |

1-

2-

3-

4-

☀ (6) TRY TO ANSWER:

1

Study the following figures, then put (v) or (X) :

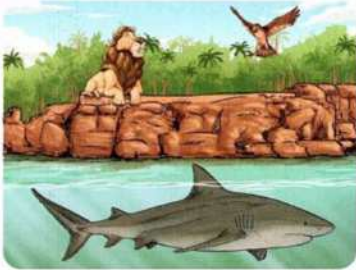


Figure (A)

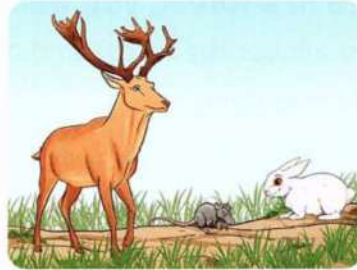


Figure (B)

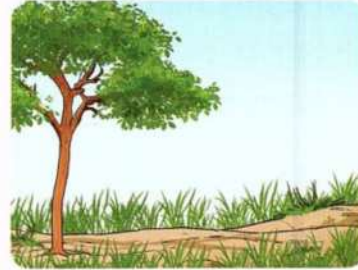


Figure (C)

1. All living organisms in figures (A) and (B) can make their own food by photosynthesis process. ()
2. Some marine organisms are present in figure (B). ()
3. Top predators are found only in figure (A). ()
4. All animals in figure (A) can find a prey in figure (B), except shark. ()
5. To form a food chain, you have to rearrange the previous figures as follows :
Figure (C) then → Figure (B) then → Figure (A). ()

2

Complete the following sentences using these words:

(Microorganisms - smoke - increase - forests)

1. Fire of cause pollution that affects the survival of living organisms.
2. Forest fire produces that causes difficulty breathing for animals.
3. If the climate change is suitable, the population of a species will
4. Small fish feed on that float on the surface of the sea.

3

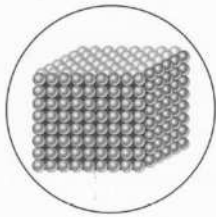
Complete the following sentences using these words :

(Extinction - overfishing - toxic - predator)

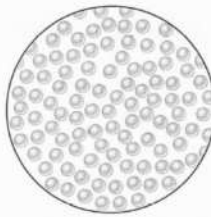
1. The human activity that directly decreases the marine population is
2. Habitat loss is not only decrease marine population but also it is one of the main causes of
3. When a sea turtle eats a jellyfish , this means that the sea turtle is a living organism.
4. Plastic waste materials are very harmful to marine organisms, because they are and sharp.

4

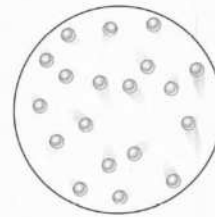
Study the following figures that represent particles of three states of matter, then put (✓) or (X) :



(1)



(2)



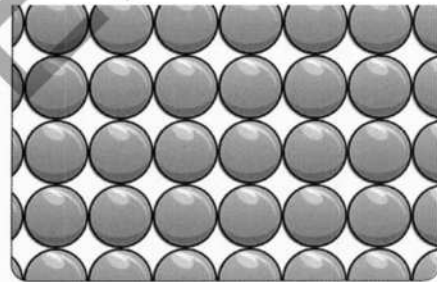
(3)

1. Figure (1) represents solid matter. ()
2. Figure (2) represents liquid matter. ()
3. By increasing the spaces between the particles of figure (2), this matter may change into solid state. ()
4. Particles of figure (1) have more energy than particles of figure (3). ()

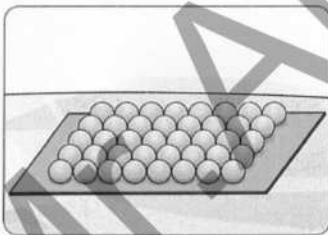
5

Look at the opposite model that shows the particles of a substance, then complete the following sentences :

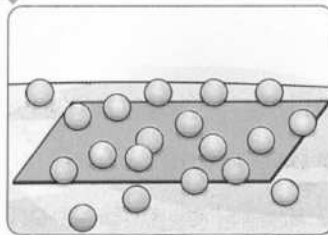
1. This model represent a substance in state.
2. If we want to make changes in this model to show this substance in a liquid state, we should the distances between balls.

**6**

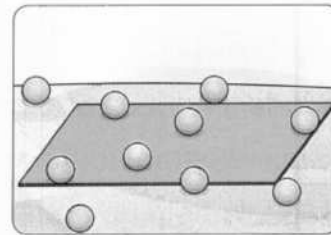
The following figures show three models of particles of some matter related to our planet Earth. Observe the figures carefully, then complete the following sentences:



(1)



(2)



(3)

1. Beads of figure could represent the particles of a rock on the Earth's surface.
2. Beads of figure could represent the particles of river water on the Earth.
3. Beads of figure could represent the particles of air that surrounds the Earth.
4. By heating the particles of figure (2), they will be similar to that of figure

Model Answer

✱ (1) Write the scientific term:

| | | |
|------------------------|--------------------|----------------|
| 1. Tertiary consumer | 9. Matter | 17. Solid |
| 2. Decomposer | 10. Temperature | 18. Microscope |
| 3. Population | 11. Solid | 19. Solid |
| 4. Microorganism | 12. Solid | 20. Liquid |
| 5. Coral bleaching | 13. Liquid | 21. Gas |
| 6. Ultraviolet rays | 14. Gas | 22. Globe |
| 7. Microplastic | 15. Gas | 23. Model |
| 8. Habitat restoration | 16. Measuring tape | |

✱ (2) Complete the following:

| | | |
|---------------------------|--------------------|---------------|
| 1. Increase | 8. Cold - hot | 15. Solid |
| 2. Floods | 9. Solid - gas | 16. Particles |
| 3. Prey | 10. Solid , liquid | 17. Solid |
| 4. Primary | 11. Solid | 18. High |
| 5. Decomposer | 12. Liquid – gas | 19. Particles |
| 6. Solid , liquid and gas | 13. Liquid | 20. Solid |
| 7. Solid | 14. Length | |

✱ (3) Choose the right answer :

| | | | | | |
|------|-------|-------|-------|-------|-------|
| 1. C | 9. B | 17. B | 25. A | 33. A | 41. B |
| 2. B | 10. C | 18. C | 26. D | 34. D | 42. A |
| 3. A | 11. D | 19. C | 27. A | 35. D | 43. B |
| 4. B | 12. D | 20. D | 28. C | 36. B | 44. A |
| 5. B | 13. A | 21. B | 29. A | 37. A | |
| 6. B | 14. D | 22. D | 30. C | 38. D | |
| 7. C | 15. C | 23. A | 31. B | 39. B | |
| 8. C | 16. B | 24. B | 32. B | 40. A | |

✱ (4) Put (√) or (X)

| | | | | | |
|----------|-----------|-----------|-----------|-----------|-----------|
| 1. (√) | 8. (√) | 15. (√) | 22. (X) | 29. (X) | 36. (X) |
| 2. (X) | 9. (X) | 16. (√) | 23. (√) | 30. (X) | 37. (X) |
| 3. (X) | 10. (√) | 17. (X) | 24. (√) | 31. (X) | 38. (√) |
| 4. (X) | 11. (X) | 18. (√) | 25. (X) | 32. (√) | |
| 5. (√) | 12. (√) | 19. (√) | 26. (√) | 33. (√) | |
| 6. (X) | 13. (√) | 20. (X) | 27. (X) | 34. (X) | |
| 7. (√) | 14. (√) | 21. (√) | 28. (X) | 35. (X) | |

☀(5) Choose from column (B) what suits it in column (A) :

1

- 1 . c 2. b

2

- 1 . b 2. d 3. c

3

- 1 . b 2. c 3. A

☀ (6) TRY TO ANSWER:

1

1. (X)
2. (X)
3. (√)
4. (√)
5. (√)

2

1. Forests
2. Smoke
3. Increase
4. Microorganism

3

1. Overfishing
2. Extinction
3. Predator
4. Toxic

4

1. (√)
2. (√)
3. (X)
4. (X)

5

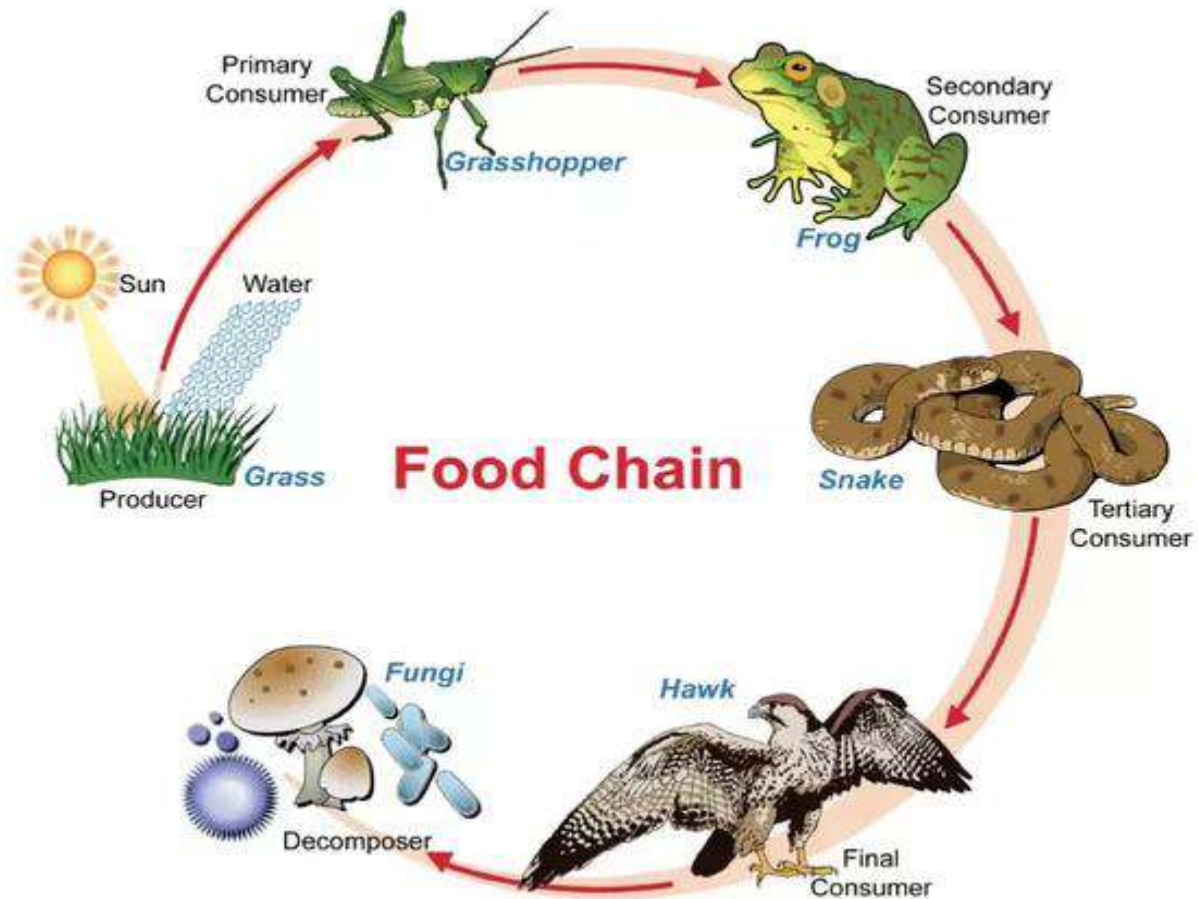
1. Solid
2. Increase

6

1. (1)
2. (2)
3. (3)
4. (3)

Lesson (3)

• FOOD CHAIN



• FOOD WEB:

- It is a model that shows many different feeding relationships among living organisms
- The ways in which many food chains interact within an ecosystem form a food web.



WORKSHEET (3)

Q.1 Choose the correct answer

1. All the following are types of food for primary consumers, except
a. grasses. b. seeds. c. fruits. d. eagles.
2. Both animals and humans bodies
a. can absorb sunlight to make their own food.
b. cannot absorb sunlight to make their own food.
c. breathe carbon dioxide gas.
d. don't need water to drink.
3. A hawk can eat..... when snakes are completely disappear from an ecosystem.
a. grasses b. grasshoppers c. birds d. leaves
4. It is better for any predator to depend on.....to get its energy and survive.
a. one species of consumers only
b. many species of consumers
c. one species of decomposers only
d. many species of decomposers
5. All types of plants are similar in all the following characters, except they.....
a. are able to make photosynthesis process.
b. are eaten by primary consumers.
c. can feed on producers.
d. live in different types of ecosystems
6. Human is a living organism.
a. producer
b. consumer
c. decomposer
d. predator
7. Secondary consumers can eat only.....
a. decomposers. b. producers.
c. Primary consumers. d. tertiary consumers.

Lesson (4)

Food webs in neighborhood

Design a model of a food web by using the following cards that show different type of living organisms.

Tools

Living organism's cards.



Step (1)

Classify the animals in the pictures above according to the type of food that each animal eats.

Observation

The mouse and rabbit eat the green plant.

The snake eats the mouse.

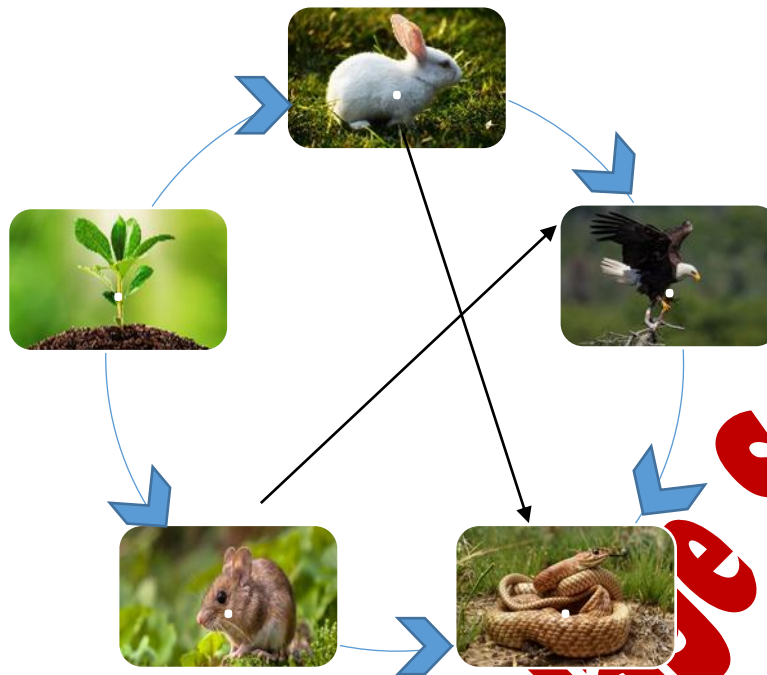
The eagle eats the mouse, rabbit and snake.

Step2

Draw a food web using arrows to show the suitable food for each animal.

Observation

According to the previous steps, we can draw the food web:



Conclusion

- *Food web is a model that describes energy flow and feeding interactions between living organisms in an ecosystem.*
- *Food webs show that different organisms in an ecosystem are connected to allow energy to pass between them to survive, where:*
- *Producers are eaten by some consumers.*
- *Some consumers are eaten by other consumers.*
- *Some consumers may eat the same producer or prey.*



Worksheet (4)

Q1. Complete the following sentences using the words below:

(Primary consumers - food web - food)

1. We cannot make a food web, if we don't know the types of..... that the.....animals eat.
2. The interconnected food chains are known as.....
3. An eagle can eat rabbits and mice, which are considered as.....

Q2. Study the opposite food web, then choose the correct answer:

1. This food web starts with

Which are producers.

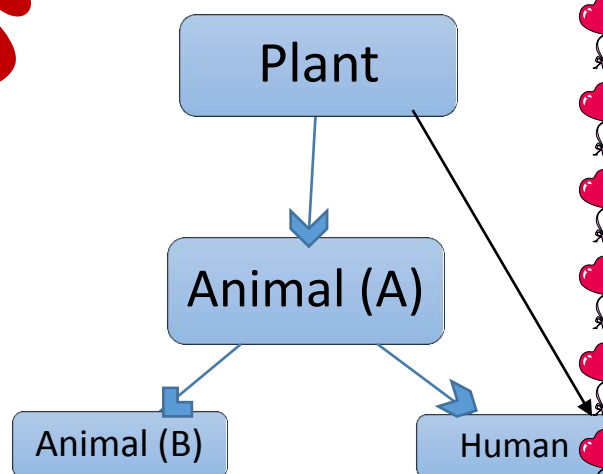
- a. human
- b. plant
- c. animal (A)
- d. animal (B)

2. Human can get energy from.....

- a. plant and animal (B).
- b. animal (A) only.
- c. plant only.
- d. plant and animal (A).

3. Energy cannot flow directly from the producer to.....

- a. human and animal (A).
- b. human and animal (B).
- c. animal (B) only.
- d. animal (A) only.





4. The living organism that gets energy directly and indirectly from the producer, is

- a. animal (A). b. animal (B).
c. plant. d. human.

5.....is considered as a primary and a secondary consumer at the same time.

- a. Plant b. Human
c. Animal (A) d. Animal (B)

Q3.Study the Following figure, then choose the correct answer below



Plant



Grasshopper



Frog



Snake

Which of the following, is necessary for survival of all living organisms?.....

- a. Plant. b. The Sun. c. Grasshopper. d. Snake.

Lesson (5)

What are decomposers?

✚ *Decomposers are organisms which make one of the most important processes on the Earth which is called "decomposition process"*



Mushroom fungus



Bread mold fungus

✚ *Decomposition process happens to all dead organisms as follows:*

| <i>First</i> | <i>Second</i> |
|--|--|
| <i>When animals and plants die, there are animals called "scavengers" eat these dead organisms and break them down into smaller pieces.</i> | <i>Decomposers complete the process of decomposition by breaking down the smaller pieces of remains of dead plants and animals into nutrients that can be returned to the ecosystem so, Plants can use these nutrients to make their own food.</i> |



Waste and dead organisms

1. Waste:

- There are only one way that people use to reduce these waste materials and trash
Known as "**Recycling**".

- In recycling process people use the waste materials and make new products instead of going into a landfill.



2. Dead organisms

When organisms die, decomposers undergo decomposition process to release nutrients back into the environment so, they can be used again.

Example

Remains of animals and plants are decomposed and become part of the soil, which is used by plants to make their own food.



Notes

- Decomposition process is considered as nature's recycling factory.
- Decomposition process takes place on land and also underwater



Worksheet (5)

Q1. Put (✓) or (x):

1. Food web shows interaction between many living organisms. ()
2. Nutrients that present in living organisms bodies returned to the ecosystem after death. ()
3. Both of bread mold fungus and house fly are decomposers. ()
4. Scavengers decompose dead plants and animals into nutrients that can be returned to the ecosystem. ()
5. Producers form their own food, while decomposers return nutrients back to the ecosystem. ()
6. At the beginning of decomposition process, decomposers break dead organisms down into smaller pieces. ()
7. Decomposers include mushroom fungus and slugs. ()
8. Recycling of waste materials reduces pollution and the size of landfills. ()
9. Both of bread mold and mushroom are two types of bacteria. ()

Q2. Write the scientific term of each of the following:

1. It is a process through which the nutrients found in dead organisms bodies return back to the ecosystem. (.....)
2. They are organisms that feed on dead organisms bodies and break them down into smaller pieces. (.....)
3. They are organisms that break down the remains of dead plants and animals into nutrients that return to the ecosystem. (.....)
4. It is a process through which humans can make new products from waste materials. (.....)



Q3. Complete the following sentences:

1. The interaction among many food chains is known as.....
2. Decomposition process done by two types of living organisms, which are..... organisms and..... organisms.
3. Nutrients that are resulted from decomposition process and returned back to the soil, can be consumed again by.....
4. Snails, earthworms and slugs are considered as, while vultures, crabs and cockroaches are considered as.....
5. Decomposition process takes place on land as well as under.....
6. Bread mold and mushroom are two types of.....
7. It is better towaste materials than throwing them in an ecosystem.



Lesson (6)

Ecologist: *They are the scientists who work on restoration projects to Have a stable environment for plants to survive.*

Prairie: *it is suitable ecosystem for plant community ecologists to do their researches.*

Restoration ecology: *means rebuilding habitats that are damaged.*

★ *It helps animals to increase their number.*

★ *restoration ecology positively affects human health.*

★ *Human and engineers must share scientists in restoration ecology.*

★ *Restoration projects must include restoring of shelters, food and water resources.*

Seed Dispersal

♥ *The transport and (disperse) of plant's seeds to grow in environments.*

★ ***Ways help plants to disperse their seeds:***

Water - air – animal and human bodies - wind

★ ***Types of seeds:***

♥ ***1-Sticky seeds*** : *that stick to human clothes or an animal's body.*

So human or animal can carry these seeds to another place where seeds fall down.

♥ ***2- Small light seeds*** : *that are dispersed by wind, these seeds fly away to new habitats to grow in other places.*

Worksheet (6)



Q1 Choose the correct answer:

1. Restoration ecology means.....

- a. damaging the rebuilt habitats.**
- b. rebuilding habitats that are damaged.**
- c. throwing plastic products in seas.**
- d. throwing plastic products in deserts.**

2. Restoration ecology helps animals to.....

- a. move away to another ecosystem.**
- b. adapte to damaged ecosystem.**
- c. decrease their number.**
- d. increase their number.**

3. All the following ways help plants to disperse their seeds, except.....

- a. water.**
- b. air.**
- C. animal bodies.**
- d. sunlight.**

4. Plants with sticky seeds need... .. to stick to disperse and grow in a new habitat.

- a. air**
- b. water**
- c. light energy from the Sun**
- d. body of a living organism.**

5. Wind play an important role in dispersing seeds.....

- a. small light**
- b. big heavy**
- c. sticky**
- d. floating**



Q2 Put (✓) or (X):

1. People and engineers must share scientists in restoration ecology. ()
2. Restoration ecology negatively affects human health ()
3. Restoration projects must include restoring of shelters, food and water resources. ()
4. All plants need the same way to disperse their seeds. ()
5. Both of small light seeds and big heavy seeds can disperse by wind.()

Q3 Write the scientific term of each of the following

1. They are scientists who work on restoration projects to have a stable environment for plants to survive. (.....)
2. Organisms that use human clothes or animal bodies or even wind to disperse their seeds to new habitats. (.....)
3. The suitable ecosystem for plant-community ecologists to do their researches. (.....)



Concept 1.3 Change in food webs:

Lesson (1)

The ecosystem affected by:

- 1- Pollution.
- 2- Climate changes.
- 3- Human activities.

Pollution: it is the harms happen to air, water and soil due to human activities.

The effects of environmental changes on the food web?

- 1- The disappearance of producer: make consumers migrate to search For food.
- 2- The presence of a large number of one type of organism: make their Food disappear.

Protection of the ecosystem:

Protection the environment in Palau Island:

Control the human activities on land by:

- 1- Avoid water pollution (when throwing waste materials in ocean.
- 2- Prevent overfishing (catching many fish from rivers, seas and ocean.

Note: if an ecosystem changes the food webs will change.

-If there is a gentle rain in the desert → the desert ecosystem may be improved (Give reason)

Because rainwater will feed the plants.

-If There is a heavy rain in the desert → the desert ecosystem may be harmed. (Give reason)

Because the water of heavy rain will cause flooding.

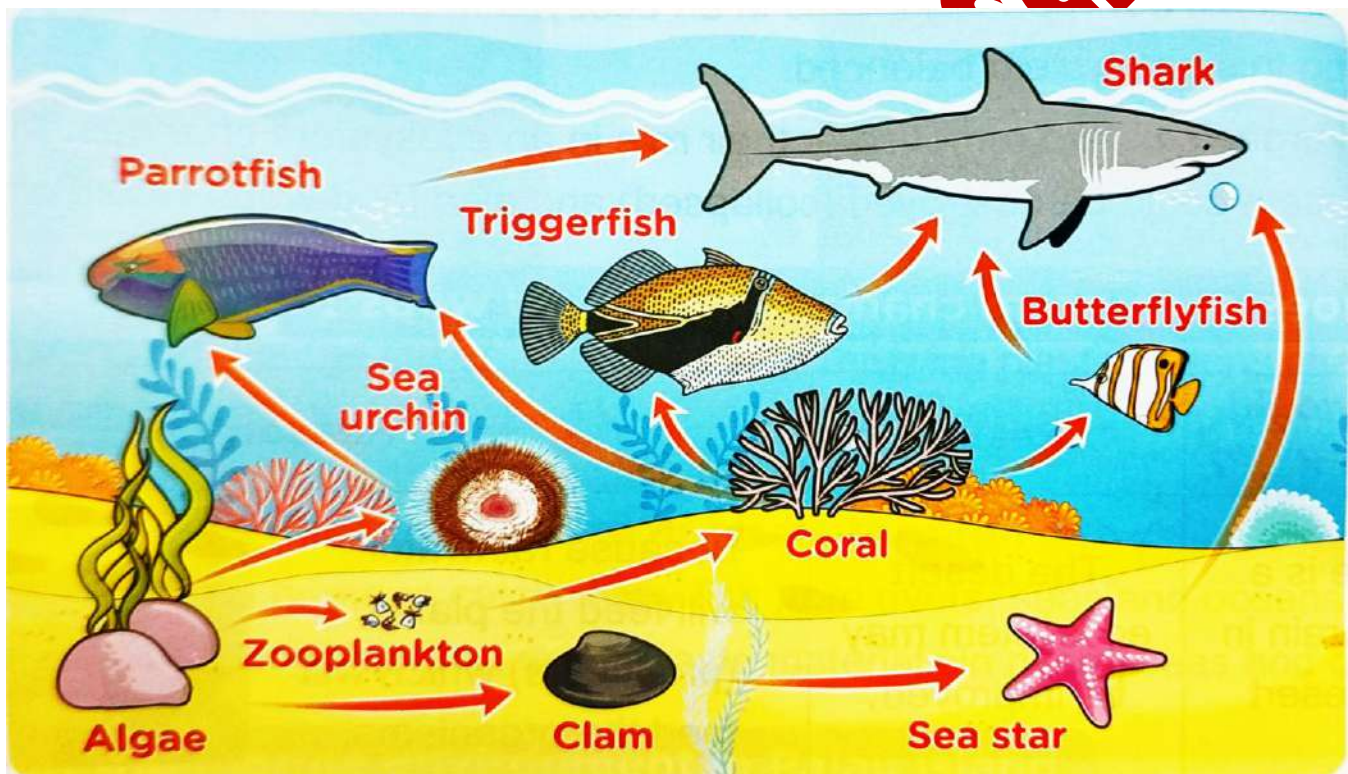
-If there is a drought and all the grass dies → the food web in the ecosystem may be **destroyed. (G.R)**

Because the plants will die and also the organisms will die.

- If there are many top predators in the food web → the other organisms in the food web like lions, tigers and sharks may be **harmed. (Give reason)**

because the top predators will eat all the organisms.

★ Marine food web:



- Algae → ☐ clam → ☐ sea star → ☐ shark
- Algae → ☐ zooplankton → ☐ coral → ☐ butterfly fish → ☐ shark
- Algae → ☐ zooplankton → ☐ coral → ☐ tiger fish → ☐ shark
- Algae → ☐ zooplankton → ☐ coral → ☐ parrot fish → ☐ shark
- Algae → ☐ sea urchin → ☐ parrot fish → ☐ shark



Worksheet (1)

➤ **Choose the correct answer:**

- 1- On extreme hot climate, the water of a lake
 - A) Increases due to evaporation.
 - B) Decreases due to evaporation.
 - C) Changes into ice.
 - D) Has a lower temperature.
- 2- All the following are human activities that affect a marine ecosystem, except.....
 - A) Flooding.
 - B) Throwing human wastes.
 - C) Overfishing.
 - D) Throwing plastic garbage.
- 3- All the following are top predators, except
 - A) Hawks.
 - B) Tigers.
 - C) Butterfly fish.
 - D) Lions.
- 4- The marine food web usually started with.....
 - A) Calm
 - B) Algae.
 - C) Zooplankton.
 - D) Parrotfish.
- 5- If calm are completely removed from a marine ecosystem, the survival of May be affected.
 - A) Tiger fish
 - B) Sharks
 - C) Sea urchin
 - D) Sea stars



➤ Put (✓) or (x) :

- Overfishing is one of the climate changes that affects the marine ecosystem. ()
- It is better to recycle the waste materials than throwing them in rivers and seas. ()
- What is happening on land doesn't affect what is happening in marine ecosystem. ()

➤ What happens if...?

- 1- Throwing big amounts of plastic garbage and waste materials in water.

.....
.....
.....

- 2- A small lake is exposed to extreme hot climate for several months.

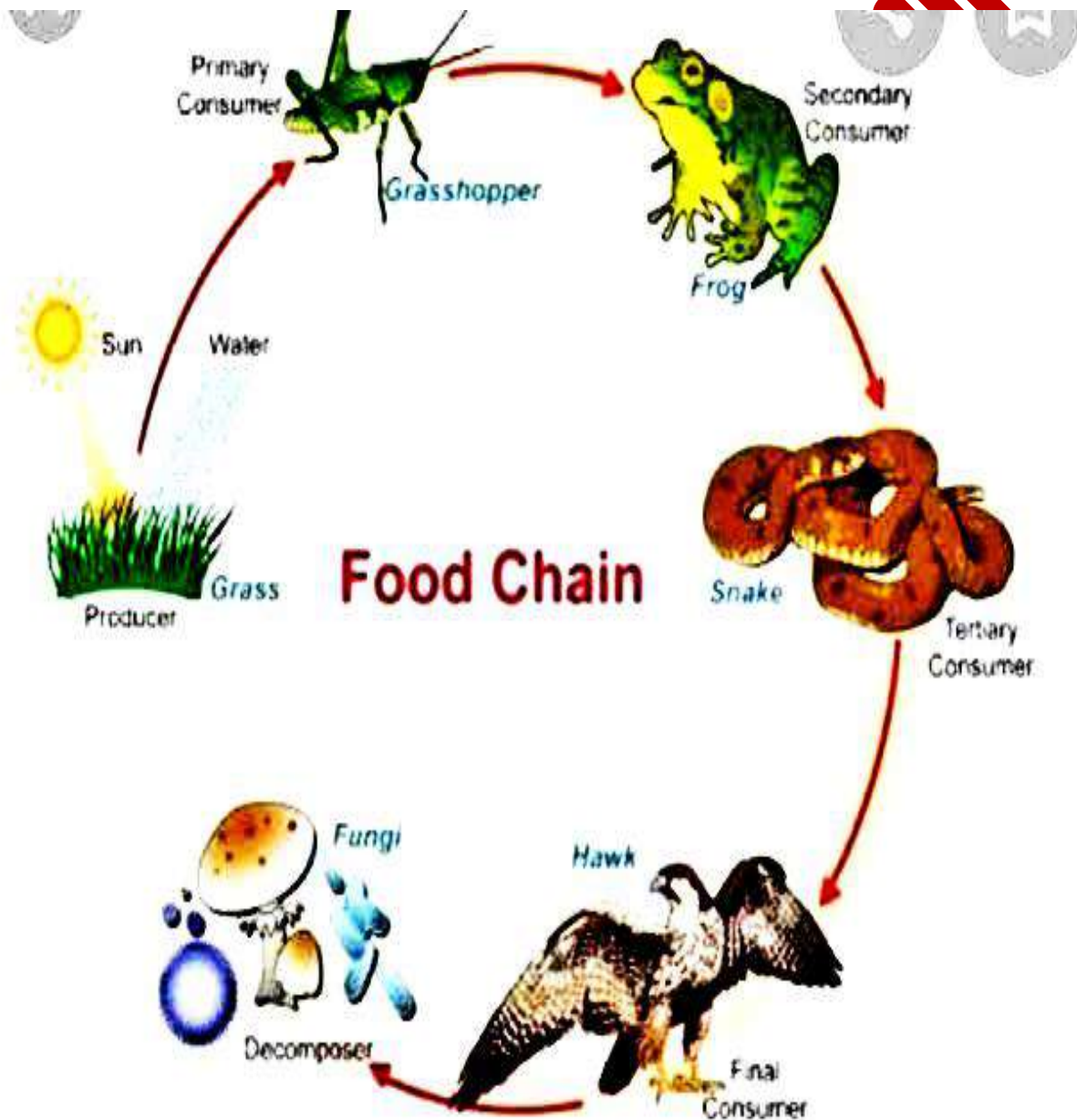
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Lesson (2)

Energy flow

- **Energy can't be created or destroyed but it transfers.**
- **The first source of energy is the sun, then energy transfers to plants (**producer**), then transfers to (**consumers**) that when they die the (**decomposers**) convert them into simple substances and return the energy back to the soil.**

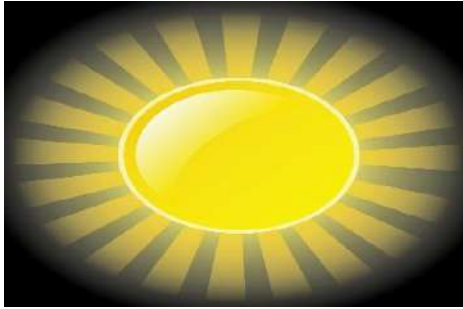
▪ **Desert food web:**



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- The sun transfers energy to producers until it reaches the decomposers, as follows:



- ✓ **The sun** is the main source of energy.



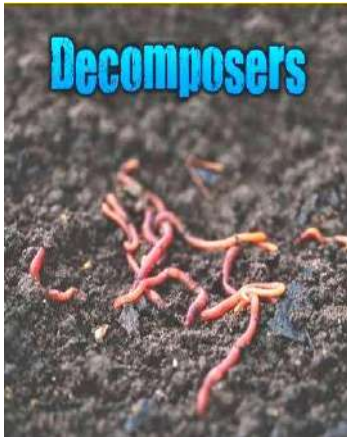
- ✓ **Producer:** green plants



- ✓ **Primary consumer:** energy transferred to the primary consumer when it feeds on plants.



- ✓ **Secondary consumer:**
energy transferred to the secondary consumer when it feeds on primary consumer.



- ✓ **Decomposer :** gets energy from decomposing the bodies of dead organism.

- The energy in the overall system remains as the same ,where :
 - ❖ 10 % only of this energy transfers between living organisms when an organism feeds on the other.
 - ❖ 90 % of this energy is left to decomposers which return this energy back to the soil.



Worksheet (2)

➤ Write the scientific term of each of the following :

1. They are consumers which feed on secondary consumers. ()
2. They are living organisms that include bacteria and fungi, which return energy back to the soil. ()

➤ Complete the following sentences:

- 1-Predators of living organisms may be for other living organisms.
- 2-A predator gets From the prey which feeds on.

➤ Put (✓) or (x) and correct the wrong answer:

- 1)90 % of the in a food web transfers between living organisms when an organism feeds on the other. ()
- 2)The soil fertility depends on decomposers. ()
- 3)The sun produces energy that decomposers use to make their food. ()

➤ Choose the correct answer:

- 1)Decomposers play an important role in returning the energy back to all the following, except
 - A) the air
 - B) The soil
 - C) The water
 - D) The decomposers
- 2)In a food chain, the energy transfer
 - A) From a predator to a prey.
 - B) From a prey to a predator.
 - C) From a predator to a producer.
 - D)From a consumer to a predator.
- 3) It is better for a predator in a food web, to have
 - A)Only one type of decomposers.
 - B)More than one type of decomposers.
 - C)Only one type of prey.
 - D)More than one type of prey



Lesson (3)

Pollution

- Pollution effect on food webs (G.R) because if an animal exposed to pollution and dies, it affects all other levels of the food web.
- **Forest fire produces smoke and ash that are spread all over the forest and cover the grasses, causes difficulty breathing of animals.**
- **Pollutants produced from forest fire harm: (air, grasses, animals, respiratory system).**
- **Leakage of oil into seawater negatively affects the marine organisms.**

Population changes

- ❖ **Population:** it is the number of organisms of one type of species living in an area.
- ❖ **Factors affect the population:**
 - ✓ increasing or decreasing the amount of water.
 - ✓ increasing or decreasing the temperature.
 - ✓ Climate change.
- ❖ We know that all species depend on other species for survival, so an increase or decrease in one species affect the population causing **population change**.



❖ **Example:**

Microorganisms (producer) → small fish → seabirds



★ Seabirds feed on small fish, the small fish feed on microorganisms that float on the surface of the sea.

★ Seabirds build their nests on the top of mountain cliffs.

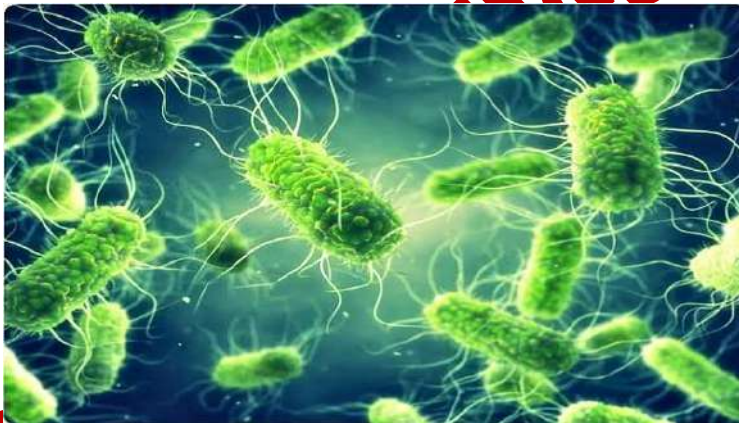
Note:

✓ **Microorganisms:**

★ They are too small organisms that can't be seen by eyes.

★ They are producers in the marine food web.

★ They make their own food and live in cold water habitats.



➤ If water temperature increase, microorganisms will move search for colder water then small fish search for microorganisms that lead to death of sea birds.

**Give reasons for:**

1-If the temperature of water increase the sea birds will die.
.....

2-Food webs can be destroyed due to pollution.
.....

Write the scientific term of each of the following:

1-They are organisms that are too small for people to see with only their eyes . ()

2-It is the number of organisms of one type of species live in an area.
()

3-It is the harms that happen to air, water or soil by substances that can harm living organisms. ()

Study the following two diagrams, then put (✓) or (x) :

Diagram (A)



Diagram (B)

- Both diagrams (A) and (B) show two food webs. ()
- In diagram (B), both of seabirds and sharks are secondary consumers. ()
- In diagram (A), if small fish are removed, the seabirds are negatively affected. ()
- There is a food relationship between seabirds and sharks, where each of them can eat the other. ()
- In diagram (B) if sharks are removed, the seabirds population may be decreased. ()

Lesson (4)

Habitat loss

- Healthy habitats are important to all organisms in food web (G.R): because they provide organisms with resources that they need to survive.
- When these habitats are destroyed, different organisms may not be able to survive.
- ❖ Example of habitat loss in a coral reef system :
Coral reef:
 - ✓ Some of the most diverse and valuable ecosystem on earth.
 - ✓ they provide food and shelter for large numbers of fish and other marine organisms .
 - ✓ They are important for tourism.



➤ Coral bleaching : (G.R)

When water is very warm, coral reef will get rid of the algae living in their tissues it make coral reefs turn completely into white.



➤ The result of coral bleaching:

- ✓ Fish and other marine that depend on coral reef for food and shelter may die.
- ✓ People that depend on coral reefs and for food will be negatively affected.

Notes:

- Human activities can affect the ecosystem by :
- Building up more buildings.
- Throwing waste materials in water.
- Overfishing in seas and oceans.

Plastic pollution:



- Plastic in sea affect marine life, where whales, sea turtles, sea birds and fish can't often differentiate between real food and plastic.
- Sea turtles can't differentiate between a jelly fish and plastic so it eat a lot of plastic and get harmed.
- Coral reefs harmed by feeding on plastic due to the effect of UV rays which break down the plastic into micro plastic which look like the food of coral reefs.



Worksheet (4)

- Choose the correct answer:

1- Healthy marine environment is important for survival of

- A) Humans
- B) Lions
- C) Fish
- D) Deers

2- When water temperature increases, algae leave tissues of so they become bleached.

- A) Seabirds
- B) Coral reefs
- C) Calm
- D) Sharks

3- Both of sea turtles and Are present in the same marine food chain.

- A) Deers
- B) Jelly fish
- C) Eagles
- D) Tigers

4- When coral reefs.....the seawater, they may ingest micro plastics.

- A) Evaporate
- B) Filter
- C) Cool
- D) Warm

- Write the scientific term of each of the following:

1) It is a condition in which coral reefs turn completely into white.

()

2) Small pieces of plastic in the size of rice grains and they cause harms to marine organisms.

()



3) It is a process that people can do for plastic waste materials Instead of throwing them in the seas and oceans. ()

- Complete the following sentences using the these words:

(Toxic – overfishing – shelter – extinction – predator)

1- Healthy natural resources include clean air, healthy food, water and suitable.....

2- The human activity that directly decreases the marine population is

3- Habitat loss is not only decrease marine population but also it is one of the main causes of

4- When a sea turtle Eats a jelly fish, this means that the sea turtle is a

- Give reasons for :

1- Coral bleaching happens when the water temperature rises.

.....
.....

2- Both of rising water temperature and ingesting micro plastic are harmful for coral reefs.

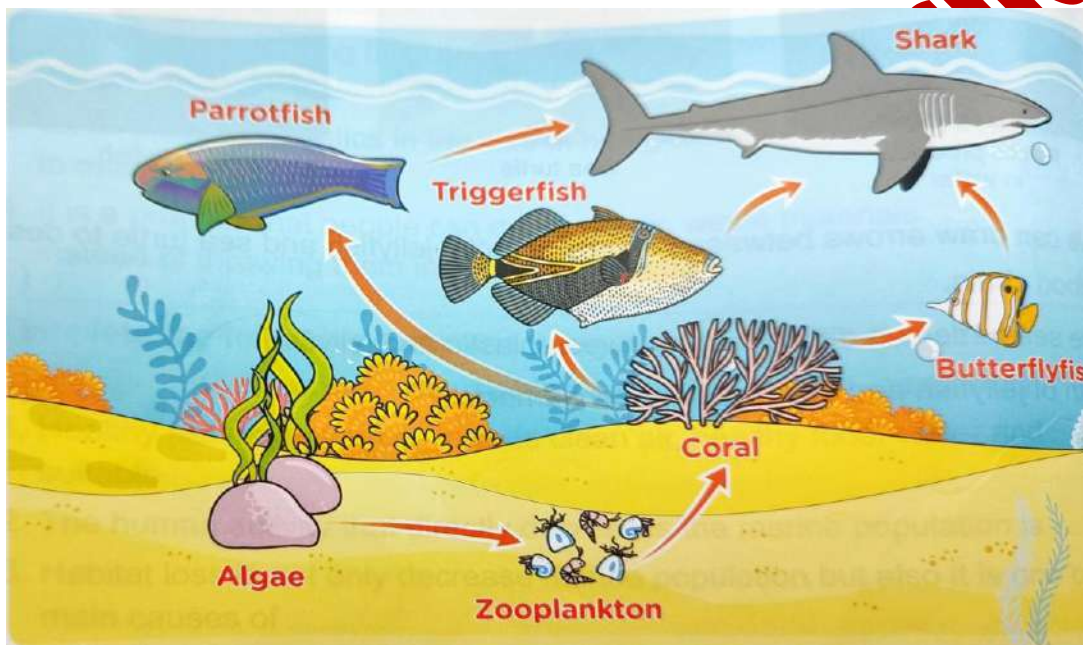
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Lesson (5)

Impact on a food web

➤ **The importance of coral in Marine food webs :**

- ✓ Food for a variety of primary consumers.
- ✓ Shelter for many organisms in the sea.



➤ **If the coral reefs disappeared the marine ecosystem will be destroyed. (G.R)**

- ✓ Because the parrot fish, tiger fish and butter fly fish will not have anything to eat so they will die.
- ✓ The shark will find a small amount of food to eat so it will die.
- ✓ The algae that live in coral tissues will lose their habitats.

Worksheet (5)



• **Put (✓) or (x) :**

- 1- If coral reefs are destroyed, many marine food chains will be destroyed. ()
- 2- Primary consumers and predators in seas and oceans are negatively affected by rising water temperature ()
- 3- Coral reefs depend on butterfly fish for food and shelter. ()

• **Choose the correct answer:**

- 1- Coral reefs Are considered as resources of
 - A) Food only.
 - B) Shelter only.
 - C) Food and shelter.
 - D) Food and pollution.
- 2- Algae in coral reefs provide food for directly.
 - A) Primary consumers.
 - B) Second consumers.
 - C) Producers.
 - D) Predators.
- 3- Coral reefs bleaching negatively affects directly
 - A) Parrot fish only.
 - B) Tiger fish only.
 - C) Butterfly fish and sharks.
 - D) Parrot fish and tiger fish.



Lesson (6)

Habitat Restoration

Habitat Restoration: it is the process of returning a habitat back to its natural state before harm was done.

Habitat Restoration projects try to repair all parts of the habitat.

Most of habitat restoration projects require a lot of work and take a long time.

❖ **Example :**

Rebuilding coral reefs: (a coral reef rehabilitation project)

✓ scientist collect small parts of different coral species and then move them to a nursery.

➤ **Nursery:** is an area in the sea, where scientists take care of small pieces of coral until they grow up.

➤ **Protecting coral reefs from plastic pollution:**

In Egypt, coastal communities near the coral reefs applied a new way of life known as a (zero plastic) where people can:

✓ Replace plastic forks with wooden ones.

✓ Replace plastic bags with cloth ones.

Worksheet (6)



• **Put (✓) or (x) :**

- 1) Citizens must share in returning a habitat back to its healthy conditions before harm was done ()
- 2) Nursery is a natural habitat in the sea, in which coral reefs continue growing and reproducing ()
- 3) People near the coastal areas must replace plastic bags with cloth one. ()

• **Write the scientific term of each of the following:**

- 1- It is an area in the sea, where the scientists take care of small pieces of coral until they grow up. ()
- 2- A process of returning a habitat back to its natural state before harm was done. ()

• **Choose the correct answer:**

- 1- Habitat Restoration projects allow scientists tothat occur to an ecosystem.
A) Increase harms.
B) Decrease harms.
C) Keep harms.
D) Increase damage.
- 2- The place in which we can take care of small pieces of coral until they grow up is known as
A) Food chain
B) Food web
C) Grassland
D) Nursery
- 3- All the follow processes show coral reefs in healthy conditions, except.....
A) Growing
B) Bleaching
C) Reproducing
D) Filtration



4- Zero plastics projects that is applied in Egyptian coastal communities, means that the using of plastic products decreases by

- A) 0%
- B) 10 %
- C) 90 %
- D) 100%

• **Give reasons for :**

It is better to keep natural resources healthy than applying restoration projects.

.....

.....

.....

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UNIT (2) CONCEPT 2.1 LESSON.1

MATTER

-Matter:

It is anything that has a mass and takes up space (has a volume)

States of water:

1-Gas state:

Such as: Air- Water vapor(steam)- Carbon dioxide- Oxygen



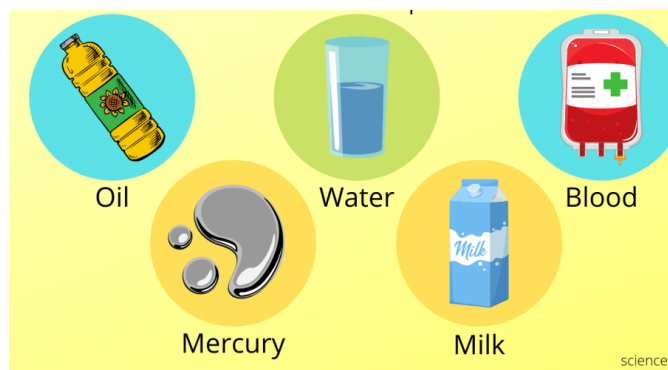
2-Solid state:

Such as: Ice- Gold- Wood



3- Liquid state:

Such as: Oil- Water- Milk- Vinegar



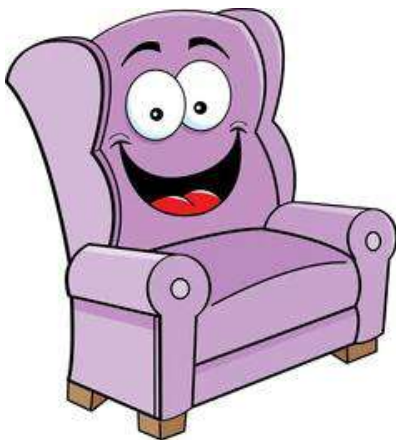
Note: -Water can be found in the three state.

-To describe any matter, we must know it's properties like:
shape ,volume, color, hardness and texture.

Properties of matter include:

1-Color:

-One color



-Many color

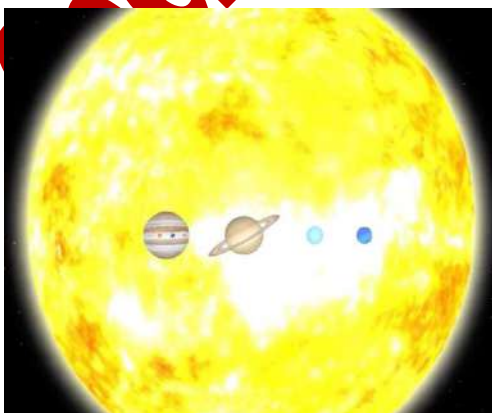


-Colorless (no color)



2- Size (volume):

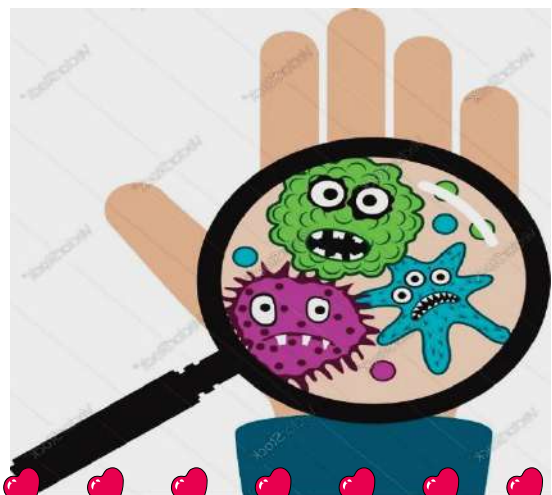
-Big
them



- Small

-Tiny that you can't see

Such as germs

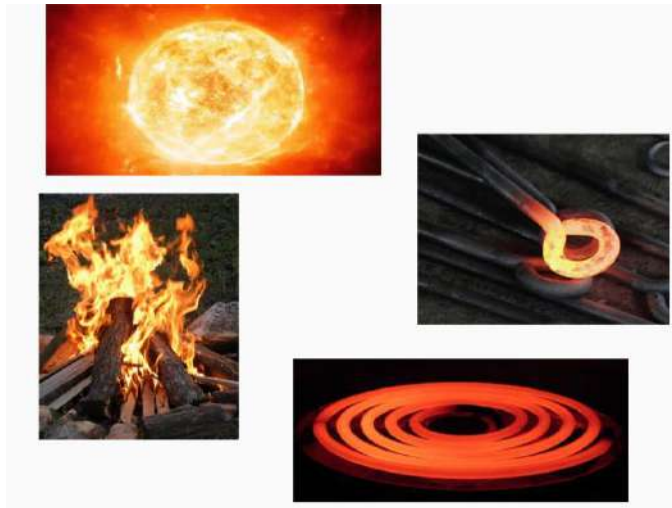




3-Temperature:

Property of matter by which we can distinguish between hot and cold).

Hot



Cold

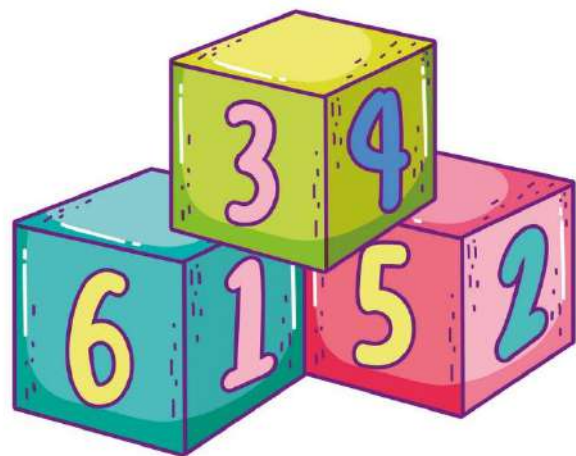


4-Shape:

Round



Square

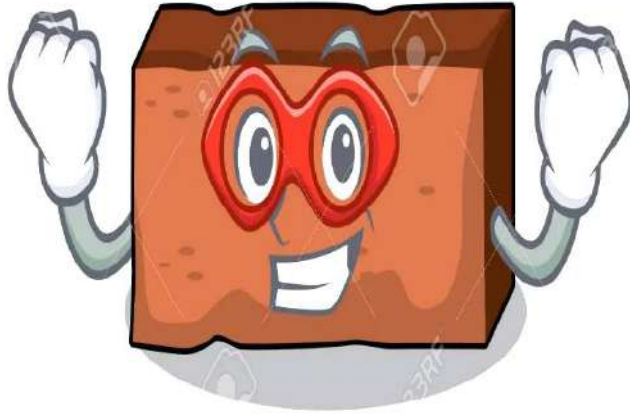




5- Hardness:

Property of matter by which we can distinguish between hard and soft.

-Hard like a brick



-Soft like a feather.



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Worksheet (1):

Q.1- Write the scientific term of each of the following:

1-Property of matter by which we can distinguish between hard and soft (.....)

2-The state of water after its boiling (.....)

Q.2- Choose the correct answer:

1-Matter can be found in.....States.

a.8 b. 2 c.3 d.1

2- The amount of space that a matter takes up is called.....

a. volume b. mass c. area d. weight

3-Both and have the same state of matter

a. oil-plastic. b. wood-water. c. iron-milk. d. wood-plastic

4-water can be found in a solid state in the form of.....

a. sea water b. steam c. ice d. boiling water

Q.3-what happen if.....?

Water is frozen in the freezer (according to the state of water after freezing.

.....

Lesson (2) Observing Matter



- **Solids:** Have definite (fixed) volume and shape.
- **Liquids:** Have definite volume but they don't have definite shape so, they take the shape of their containers.
- **Gases:** Definite no volume and shape, so they take the volume and shape of their containers.

The particles of all Matter

1-Particles of solid matter:

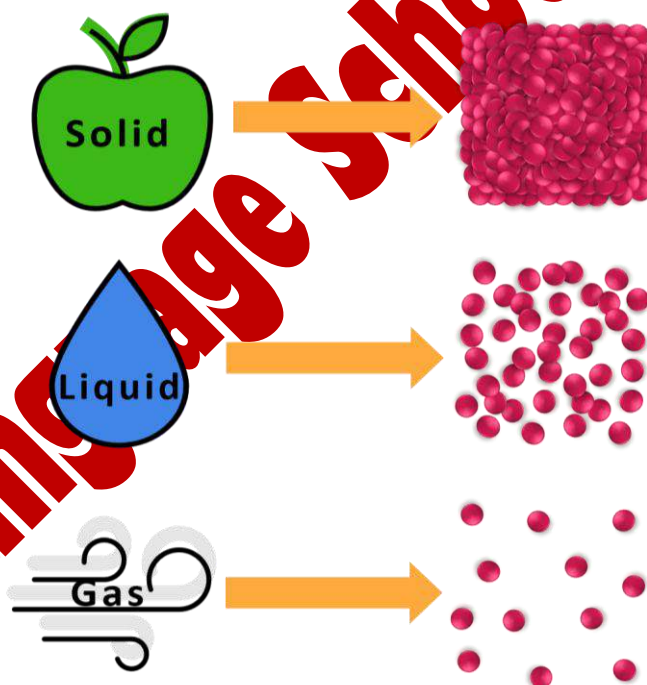
- They are very close to each other (packed tightly).
- They have less energy.
- They move only a little bit.

2-Particles of liquid matter

- They have more spaces.
- They have more energy
- They can move more freely.

3-Particles of gases matter

- They have a lot of spaces.
- They have a lot of energy
- They move very freely



Note: There are some things that are not matter as light and sound which are forms of energy.

Notes:-

We can measure the length of some matter using **ruler** or **measuring tape**.

- We can measure the mass of matter using **a scale**.
- Matter can change from one state to another such as from solid to liquid by melting, from liquid to solid by freezing.

Worksheet (2)Q.1-Give reasons for:

1- Oxygen has no definite shape or volume.

.....

2- Stone has definite shape and volume.

.....

3- Vinegar is a liquid matter.

.....

Q.2-Put (✓) or (X) and correct the wrong ones:

1. All forms of matter have volume.()

.....

2. Liquids don't take the shape of the container that they are placed in. ()

.....

3 Both oil and wood have definite shape.()

.....

4.On transferring water from one pot to another,its volume will change.()

.....

5. Light and sound are forms of matter. ()

.....

Q.3- Choose from column (A) what suits it in column (B):

| A | B |
|-------------------|---|
| 1. Gasoline | a) Its particles have medium energy. () |
| 2. Carbon dioxide | b) Its particles are packed tightly. () |
| 3. Sand | c) Its particles do not at all. () |
| | d) Its particles move freely. () |

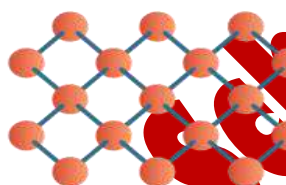
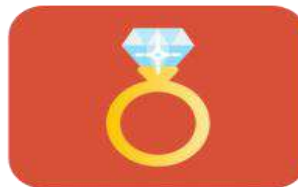
Lesson (3)

States of Matter

1-The shape of solids matter:

- ❖ They have a definite (fixed) shape.
- ❖ Their shape do not change unless
Something is happening to change them.

Diamond



Atoms in a solid

2-The shape of liquids matter:

- ❖ They do not have definite shape.
- ❖ They take the shape of their
containers.

Glass of Juice

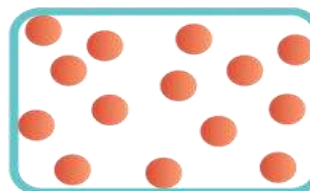


Atoms in a liquid

3-The shape of gases matter:

- ❖ They do not have definite shape.
- ❖ They completely fill their containers
and take their shapes.

Air



Atoms in a gas

What is Matter?

Matter is something that you can:

1-Feel:

Such as: Air



2- See:

Such as: Pencil



3- Smell:

Such as: Flower



Worksheet (3)



Q.1-Cross out the odd word:

- 1- Steam- Oxygen- Gasoline- Air (.....)
- 2- Vinegar- Aluminium- Gold- Wood (.....)
- 3- Ball- Air- Pencil- Table (.....)

Q.2- Complete the following sentences:

- 1-are known as the building units of matter.
- 2- Particles of are held more loosely, than particles of solids.
- 3- The shape of do not have definite shape.
- 4- Matter is something that you can..... and
.....
- 5- Particles ofmove very quickly in all directions.

Q.3-What happens if.....?

Solid changes into liquid. (according to the speed of particles)

.....

November revision G.5

2022-2023

Q.1: choose the correct word :

1. Decomposers are found at the of the food chain. (beginning - end)
2. are decomposing organisms. (Plants-Fungi)
3. Julius produce waste that is rich in (nutrients - glucose)
4. Producers obtain energy directly from (the sun - air)
5. are organisms that do not feed on other organisms. (Consumers - Producers)
6. ...is transmitted from prey to predator in the food chain.(Only energy - Food and energy)
7. Snakes are considered prey for (rat - hawks)
8. is/are an example of scavenger organisms. (Eagles - Bacteria)
9. Flies in the house are considered creatures. (decomposer - scavengers)
10. When bacteria disappear from a stable ecosystem, it will be (stable- disturbed)
11. Plant seeds that are spread by wind are seeds. (sticky - light)
12. When the producer organisms disappear from an environment, the
consuming organisms will (migrate to other places - stay in its place)
13. When there are large numbers of one species of living organism, the food
resources after a period. (increase - disappear)
14. When there are large numbers of one species of living organism in
ecosystem, it (get stronger - may die of hunger)
15. If there is gentle rain in the desert,the desert ecosystem may (improve - be damaged)
16. Producers and consumers die in the desert due to
(the occurrence of drought - the increase in the number of predators)
17. Seabirds dive into the depths of the sea to (build their nests - search for small fish)
18. Microorganisms are found at the of marine food chain.
(beginning - end)
19. Microorganisms move to another environment when the water becomes ...
(cold - warm)

20. Small fish move to a new habitat upon the death of (microorganisms - seabirds)
21. Plastic products are broken into small pieces due to ultraviolet rays emitted from (sun - moon)
22. Plastic particles has nutritional value of marine organisms such as whales and turtles. (large - zero (non))
23. Ice cubes that are placed in water are in a state. (solid - liquid)
24. Solids and liquids both have a (definite volume - definite shape)
25. The air we breathe is an example of a state. (solid - liquid - gaseous - frozen)
26. Particles are in a state. (static - motion)
27. The determines the state of matter. (number of particles - movement of particles)
28. Gases occupy space than solids. (more - less)
29. Gas particles have a volume. (large - small)
30. Water freezes into (ice - water vapor)
31. Matter consists of (waves - particles)
32. The walls and tables in your classroom are in a state. (gaseous - solid)
33. has particles that are close to each other. (Oxygen - Iron)
34. A bicycle tire is a (solid - gas)
35. Solid particles are each other. (close to - far from)
36. Solid particles allow matter to (keep its shape - take the shape of its container)
37. Liquid particles allow matter to (keep its shape - take the shape of its container)
38. Particles in the liquid state..... (move very fast - are static)
39. Particles in the gaseous state (move very fast - don't move from place to another)
40. Earth can be seen from a (sailing ship - space satellite)
41. is a process that preserves vegetables and keeps them fresh. (Evaporation - Freezing)

Q.2 : Complete the following statements :

1. primary consumers feed on
2. Earthworms and Julius are Examples of
3. Julius feed on
4. The snail is one of thecreatures, while the crab is one of the
5. The seeds of plants that are scattered by the wind are..... to move for long distances.
6. The disappearance of..... organisms affects all living things in the food web.
7. the ecosystem may..... ,If there is heavy rain in the desert,
8. If drought occurs, and all the grass in the desert dies, so the food web may
9. Energy is transferred fromto producers until reaches toprocess
10. project is an example of the restoration of natural habitats that take place in the Arabian Gulf.
11.is important for the needs of living organisms to survive.
12. phenomenon causes damages coral reefs and causes their extinction.
13. Some matters can be hard, such as and some matters are soft, such as
14. and..... are both characteristics of matter
15. matter has definite shape.
16. state can be compressed
17. Water vapor is an example of a.....state, while snow is an example of a....state
18. Solid particles are linked together by a attraction force.
19. Liquids and gases both haveshapes

Q.3: Correct the underline words :

1. Decomposers are located at the center of the food chain.
2. Consumer organisms help in soil fertility.
3. snake is considered a prey when it feeds on the rat ,.
4. Bread mold fungi are producer organisms.
5. The lion is considered one of the producers.

6. Decomposers are organisms that get their food from producer organisms.
7. The lion is one of the decomposing creatures.
8. The seeds of light and coarse plants stick to human clothes without being noticed.
9. When one type of living organism increases too much, the food resource increases.
10. The marine environment on the island of Palau shall be protected by establishing well-designed nurseries in its waters.
11. Organisms in the desert food web are damaged when the numbers of predators are stable.
12. Energy is recycled back into the ecosystem by consuming organisms.
13. Seabirds build their nests on the water surface
14. Microorganisms in the marine environment are considered primary consumers.
15. Sea birds feed on sharks.
16. Bleaching of coral reefs occurs when the water temperature decrease.
17. Plastic materials analysis under the effect of the moon.
18. Corals get food in turbid waters.
19. Gas particles are close to each other.
20. Particles of solid matter move quickly.
21. Particles of liquid matter move freely.
22. The attraction force between solid particles is very weak
23. Particles of a solid state are very far apart.
24. Particles in a liquid state move much faster than particles in a gaseous state.
25. Particles in a gaseous state do not usually move from one place to another.
26. Gas particles move slowly.
27. Water vapour is an example of matter in a solid state.
28. The three states of water are solid, liquid, and dew

Q.4: Put (v) or (X)

1. Decomposers organisms break food into smaller pieces. ()
2. Waste can be reduced through recycling. ()
3. Sweating organisms feed on dead organisms after cutting them into small pieces. ()
4. The disappearance of producers does not affect consuming organisms.()
5. The food web contains all the components that make up the food chain. .()
6. When pollution occurs on land, it does not affect marine organisms. .()
7. The quality of the marine environment on the island of Palau can be closely monitored by the management of land activeities. .()
8. some organisms die, When any change occurs in the ecosystem.()
9. The shark feeds on the butterfly fish, which feeds on coral. ()
10. Energy remains in the system as it, despite its transfer between living organisms. ()
11. When all rabbits die of hunger, the rest of the living organisms within the food web are affected. ()
12. Air pollution with smoke may destroy the food web. ()
13. Energy is transmitted from microorganisms to small fish and from there to sea birds. ()
14. Human activity may affect the weather and non-living things in the ecosystem. ()
15. a limited number of living organisms Lives inside and around the coral reefs.
16. Sometimes coral reefs are the shelter to many other coral reefs.()
17. Plastic particles has a size of a grain of rice. ()
18. Plastic particles may cause poisoning of marine organisms. ()
19. The sea turtle eats a lot of plastic, thinking it is a jellyfish. ()
20. When coral reefs are polluted, the entire ecosystem may destroyed.
21. rain fall one of the causes of loss of habitat ()
22. Plastic is a suitable food for many marine organisms.()
23. Studying the properties of matter is unimportant. ()
24. Human bodies are considered matter. ()
25. Matter can be multi-colored or colorless. ()
26. Matter can be changed from one state to another. ()
27. Two objects can occupy the same space at the same time. ()

28. Liquids keep their shape unless acted upon by an external force. ()
29. Matter occupies space. ()
30. Pencils are made of micro particles. ()
31. Gas particles are coherent. ()
32. The spaces between liquid particles differ from the spaces between gaseous particles. ()

Q5: Choose the correct answer from the brackets :

1 - The food web in the ecosystem is not affected when

(Change in the environment - disappearance of producers - increase in the number of a species of living organisms - adaptation of organisms to the environment)

2- The following reasons destroy the desert ecosystem except

(Light rain - heavy rain - drought and death of all grass - increase number of predators)

3- Seabirds search for food.....

(At the top of the mountain cliffs - by diving in the depths of the sea - by floating on the surface of the sea - in warm water)

4- When water is very warm.....

(Algae close to coral reefs – the coral turns completely white – the reef is dying – the reef expels algae from its tissues)

5- Coral bleaching affects.....

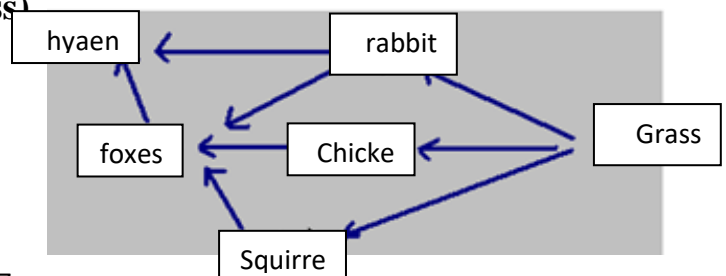
(coral reef population - fish population - human population - all of the above)

6- All of the following are products of the removal of huge quantities of plants except ...

(Erosion of river banks - arrival of floods - distribution of ecosystem - stability of ecosystem)

7- From the following food web, the amount of squirrels decreases at

(Decreasing the number of chickens - increasing the number of rabbits - increasing the number of foxes -increase the amount of grass)



8 - During the food chain,transfer between living organisms.

(blood - matter - energy - heat)

9- food chain begins with a producer organism.

(On land - in the desert environment - in the aquatic environment - all of the above)

10 - The arrows in the food chain indicate

(matter transfer direction - Recycling direction - Energy transfer direction - Increasing the amount of energy)

11- Sea turtles are considered to be ...(Producing - consuming - decomposing - extinct) organism.

12- Coral bleaching occurs at

(high temperature - low temperature - constant temperature - freezing)

13- All of the following are solid except:

A) Salt B) Wood C) Iron D) Benzene

14- is a liquid substance.

A) Salt B) Wood C) Iron D) Benzene

15-- is the state of water when it freezes.

A) Solid B) Liquid C) Gas D) Vapor

16 -is/are an example of solid matter.

A) Clouds B) Books C) Small ponds D) Mineral water

17-is an example of liquid matter.

A) Ice cream B) Orange juice

C) Carbonated water D) Molten ice

18- The energy of solid particles is..... the energy of liquid particles.

A) greater than B) less than C) equal to

19 - particles move freely

A) Solid B) Liquid C) Gaseous D) Frozen

20 -matter has particles with large spaces and high kinetic energy

- A) Solid B) Liquid C) Gaseous D) Frozen

21 – Solid particles.....

- A)are coherent B) are free to move c) are incoherent d) take the shape of their container

22 - Particles in the liquid state

- A)are coherent B) are free C) are very close to each other D) take the shape of container

23 - Particles in the gaseous state

- A) are coherent B) are free C) are incoherent D) keep their shape from changing

24 - particles are in an order and pattern that keeps their shape from changing

- A) Gaseous B) Liquid C) Solid D) Vapour

25 - has particles that are interconnected and close to each other

- A- Water B- Milk c) Water vapour D) Wood

Q6: Write the scientific term :

- 1 - The main food source for many seabirds. ()
- 2- Decrease or increase the number of a species of living organism in environment. ()
- 3- A phenomenon that occurs to coral reefs when the water temperature rises. ()
- 4 - An area in the ocean where small of coral reefs are cared for. ()
- 5- Pollution occurs due to the throwing of plastic waste in sea water. ()
- 6 - Anything that has mass and occupies space. ()
- 7- A substance with particles that are interconnected and close to each other. ()
- 8- A substance with particles that maintain their cohesion. ()
- 9 - A substance with particles that move at very high speeds. ()

Q7: Give reasons for each of the following:

1 - The importance of natural habitats for living organisms.

.....

2 - Human interference in the environment is one of the reasons for changing the natural habitat.

.....

3- Ice is a solid state

.....

4- Perfume is a gaseous state

.....

5- you cant break a piece of iron with your hand

.....

Q8: What happens when:

1 - High amounts of plastic materials in the marine environment.

.....

2 - The disappearance of coral reefs.

.....

3- Removing huge amounts of plants.

.....

4- you open a bottle of perfume

.....

5-you put amount of water in a new container differ in shape than the first one

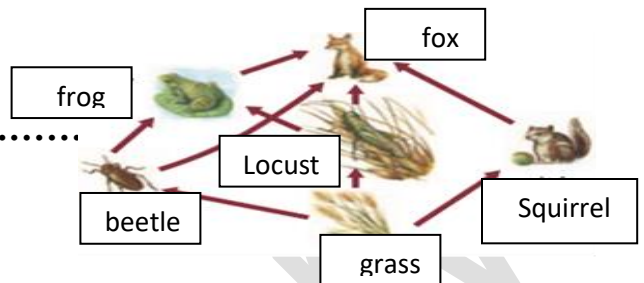
.....

6-you put a cube of wood in a new container differ in shape than the first one

.....

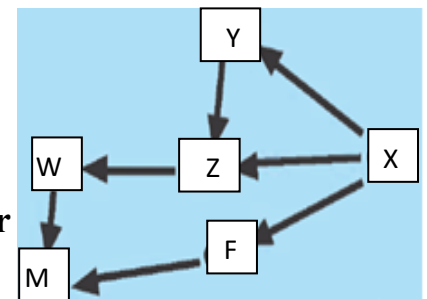
Q9: From the opposite food web, complete:

- 1- The number of locusts decreases when
- 2- When a squirrel dies, a..... is looking for an alternative source of food
- 3- the death of causes the death of rest of the organisms in the food chain
- 4- is considered a producer

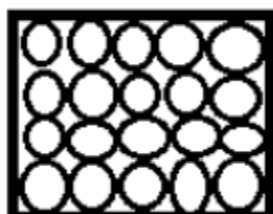


Q10: From the following food web, complete:

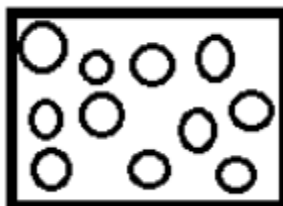
- 1- The only producer organism is
- 2 - The object (Z) related to the object (X) is considered a..... consumer , and related to the object (Y) is considered a..... consumer



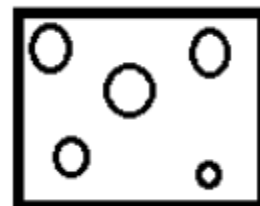
Q11: Which of the following pictures show the shape of particles in a gaseous substance?



A



B



C

Q 12: Look at the rising water vapor in the opposite figure, then complete:

- 1 – State:.....
- 3 – shape :.....
- 4 – volume:.....
- 6 - The distance between the particles:.....
- 7 - Particle cohesion:.....
- 8 - Particle movement:.....
- 9- Mention the state of container?



Answers

Q.1

| | | | | | |
|-------------------|----------------------------|------------------------------|-------------------------|--------------|------------------------------------|
| 1- End | 8-Eagles | 15-Improve | 22-zero (non) | 29-large | 36-keep its shape |
| 2- Fungi | 9-Scavengers | 16-The occurrence of drought | 23-Solid | 30 Ice | 37-take the shape of its container |
| 3- Nutrients | 10-Disturbed | 17-Search for small fish | 24-difinite volume | 31-Particles | 38-move very fast |
| 4- Sun | 11-Light | 18-Beginning | 25-Gaseous | 32-Solid | 39-moving very fast |
| 5- Producer | 12-migrate to other places | 19-warm | 26-motion | 33-Oxygen | 40-Space satellite |
| 6-food and Energy | 13- disappear | 20-Microorganisms | 27-movement of Particle | 34-Solid | 41-Freezing |
| 7- hawks | 14- may die of hunger | 21-Sun | 28-more | 35-close to | |

Q.2Complete

1. Plants
2. decomposers
3. Remains of dead plants
4. scavengers - decomposers
5. Light
6. Producers
7. destroyed
8. destroyed
9. Producers , decomposition
- 10.restoration
- 11.Natural habitats
12. Coral reef bleaching
13. Stone, feathers

14. Occupies space - has mass

15. Solid

16. Gaseous

17. gaseous, solid

18. attraction

19. indefinite

Q.3 Correct :

1. End

2. decomposers

3. Predator

4. decomposer

5. Consumer

6. Primary consumers

7. Fungi

8. Sticky

9. decrease

10. Marine reserves

11. Increase

12. decomposer

13. The top of the mountain cliffs

14. Producers

15. Small fish

16. increase

17. Sunrays

18. clear

19. Solid

20. Slowly

21. gas

22. Interconnected

23. Very close to each other

24. Solid

25. Solid

26. Completely freely (very quickly)

27. gas

28. gas

Q4

| | |
|------|------|
| 1-x | 17-v |
| 2-v | 18-v |
| 3-v | 19-v |
| 4-x | 20-v |
| 5-v | 21-v |
| 6-x | 22-x |
| 7-v | 23-x |
| 8-v | 24-v |
| 9-v | 25-v |
| 10-v | 26-v |
| 11-v | 27-x |
| 12-v | 28-x |
| 13-v | 29-v |
| 14-v | 30-v |
| 15-v | 31-x |
| 16-v | 32-v |

Q.5 Choose :

- 1 – Adaptation of objects to the environment
- 2 – Light rain
- 3 – Diving in the depth of sea
- 4 – the coral turns completely white
- 5 – All of the above
- 6 – Stability of the ecosystem
- 7 – Increasing the number of foxes
- 8 – Energy
- 9 – All of the above
- 10 – Energy Transfer Direction
- 11 . Consuming
- 12 – High temperature

13 – Benzene

14 – Gasoline

15 –Solid

16 – Books

17 – Ice cream

18 – Less than

19 – Gaseous

20 – Gaseous

21 – are coherent

22 – take the shape of their container

23 – are incoherent

24 – Solid

25 – Wood

Q6:

1 – Small fish

2 . population

3 – bleaching coral reefs

4 – nursery

5 – Plastic pollution

6 – Matter

7 – Solid

8 – Solid

9 – Gaseous substance

Q7 :

1 – Because they provide living organisms with everything they need, to survive.

2 – Because he built roads and buildings, threw wastes into water, and overfished fish.

3- because the particles of ice are very close to each other and has a strong attraction force

4- because the particles of perfume are very far from each other and has a very weak attraction force

5- because it has a strong attraction force between its particles

Q8:

1 – Damage to the marine environment and all living organisms living in it and causes destruction of marine food web

2 – Negatively affect coral population , fish population and human population communities that depend on them for food.

3 – the ecosystem will destroy

4- the smell of perfume will spread all over the room as it is a gaseous state

5- the water take the shape of new container

6-the shape and volume of the cube still constant

Q9:

1 – frogs increase

2 – Fox

3 – Herbs

4 – Herbs

(10)

1 – X

2 – primary consumer - secondary consumer

(11) Fig. C

(12)

1 – Gaseous

3 – indefinite (variable)

4 - indefinite (variable)

6 – Very large 7 – Very weak 8 – Random very fast 9- Solid